

W. NATIONAL INSTITUTES OF HEALTH

## **NEW GRANTS AND AWARDS**

Arranged by State, City and Institution

REPORT 19 M

Announced During

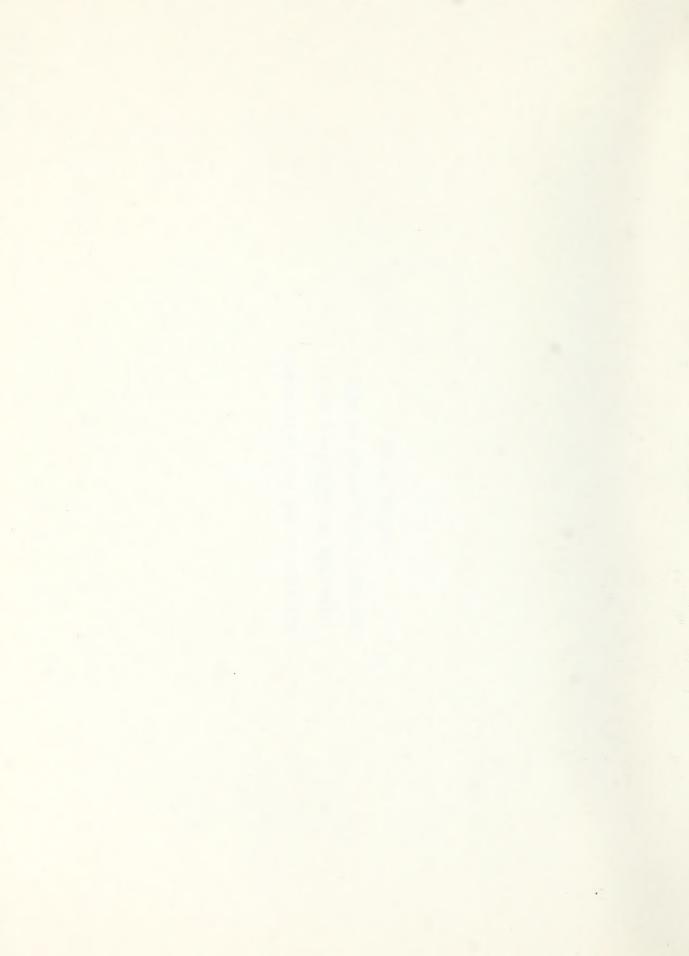
JULY and AUGUST 1973

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Public Health Service R 737 U.5 & 1973 July-Aug. PREPARED BY

NATIONAL INSTITUTES OF HEALTH

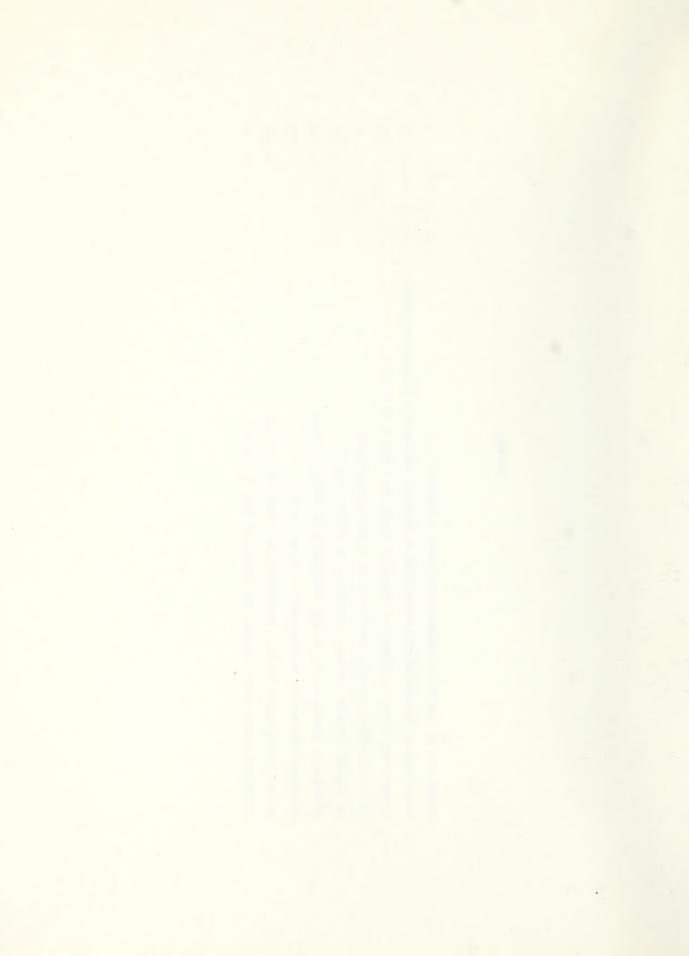
DIVISION OF RESEARCH GRANTS

STATISTICS AND ANALYSIS BRANCH



#### CONTENTS

	> .	SUMMARY OF NEW GRANTS AND AWARDS, BY PROGRAM AND SUPPORTING INSTITUTE OR DIVISION		2	5	5	5	5
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SYMBOLS USED TO IDENTIFY THE SUPPORTING INSTITUTE OR DIVISION	SYMBOLS USED TO IDENTIFY THE TYPE AND/OR LEVEL OF FELLOWSHIP AND RESEARCH CAREER PROGRAM AWARD	SU	NEW RESEARCH GRANTS, BY AREA, INSTITUTION AND PRINCIPAL INVESTIGATOR	NEW RESEARCH CONTRACTS, BY AREA, INSTITUTION AND PROJECT DIRECTOR	NEW RESEARCH TRAINING GRANTS, BY AREA, INSTITUTION AND PROGRAM DIRECTOR	NEW RESEARCH FELLOWSHIPS, BY AREA, INSTITUTION AND FELLOW	NEW CONSTRUCTION GRANTS, BY AREA, INSTITUTION, AND AUTHORIZING OFFICIAL	NEW MEDICAL LIBRARY GRANTS, BY AREA, INSTITUTION AND PROJECT DIRECTOR.
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AH DIVISION OF ALLIED HEALTH MANPOWER

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

AI

AM NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES

NATIONAL CANCER INSTITUTE

CA

CB DIVISION OF CANCER BIOLOGY AND DIAGNOSIS
CD OFFICE OF CANCER CONTROL
CM DIVISION OF CANCER TREATMENT
CP DIVISION OF CANCER CAUSE AND PREVENTION

CL CLINICAL CENTER

CT DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY

DE NATIONAL INSTITUTE OF DENTAL RESEARCH

DH DIVISION OF DENTAL HEALTH

ES NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

EY NATIONAL EYE INSTITUTE

GM NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES

HD NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

HL NATIONAL HEART AND LUNG INSTITUTE

JT JOINT (TWO OR MORE SUPPORTING INSTITUTES OR DIVISIONS)

LM NATIONAL LIBRARY OF MEDICINE

MB OFFICE OF THE DIRECTOR, BHME

MI DIVISION OF MANPOWER INTELLIGENCE

NS NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND STROKE

NU DIVISION OF NURSING

OD OFFICE OF THE DIRECTOR, NIH

PE DIVISION OF PHYSICIAN AND HEALTH PROFESSIONS EDUCATION

RG DIVISION OF RESEARCH GRANTS

DIVISION OF RESEARCH RESOURCES

DIVISION OF RESEARCH SERVICES

RS

RR

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FOGARTY INTERNATIONAL CENTER

# SYMBOLS USED TO IDENTIFY TYPE OR LEVEL OF FELLOWSHIP AND RESEARCH CAREER PROGRAM AWARD

THE ABBREVIATION FOLLOWING THE DEPARTMENT OR PROJECT TITLE IDENTIFIES THE TYPE AND/OR LEVEL OF AWARD

FOZ POSTDOCTORAL FELLOWSHIP

FO3 SPECIAL (INDIVIDUAL) FELLOWSHIP

FO4 NURSING FELLOWSHIP

FOS INTERNATIONAL FELLOWSHIP

FIO FELLOWSHIP TRAINEESHIP

F11 DIRECT TRAINEESHIP

F13 HEALTH SCIENCE SCHOLAR

F15 FOGARTY INTERNATIONAL SCHOLARSHIP

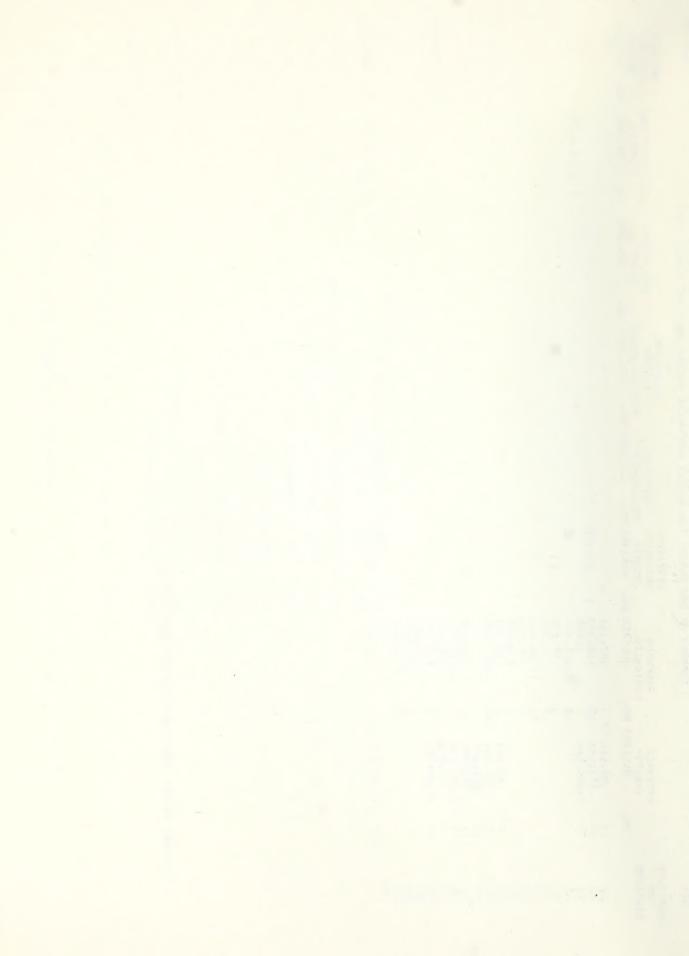
KO4 MODIFIED RESEARCH CAREER DEVELOPMENT AWARD

KO7 ACADEMIC CAREER AWARD

KOB CLINICAL INVESTIGATOR CAREER AWARD

PAGE VII	MEDICAL LIBRARY GRANTS DOLLARS			308,629	308,629
	NO.			11	Ξ
8	CONSTRUCTION GRANTS NO. DOLLARS	9 12,411,278			9 12,411,278
ND AUGUST 197	EDUCATION GRANTS DOLLARS				
NEW GRANTS AND AWARDS ANNOUNCED DURING JULY AND AUGUST 1973	RESEARCH CAREER PROGRAM AWARDS NO. DOLLARS NO.				
UD AWARDS ANNO	RESEARCH FELLOWSHIPS NO. DOLLARS				1 8,781 1 8,781
W GRANTS AN	RESEARCH FRAINING GRANTS DOLLARS	23,076			23,076
	NO	-			-
SUMMARY DE	RESEARCH CONTRACTS DOLLARS	203,184 415,093 2,668 4,155,394 499,410 3,121,871	2,544,440 24,350 434,355 15,267	1,973,279 1,082,707 3,916,571 825,137 892,045	15,000 415,581 39,656 20,576,008
	0	10 10 10 10 10 10 10 10 10 10 10 10 10 1	18	15 12 30 11	1 3 2 184
	RESEARCH GRANTS* DOLLARS	291,119 871,306 5,830,866	50,659	237,559 691,623 1,141,846 7,174,203 31,766 1,486,841	17,807,808
	NO.	13 27 59	2	25 32 91 2 19	277
NIH	INSTITUTE OR DIVISION	A A O O O O	CC C C E S E E S	N L H B G E Y	7 8 8 D D W

\* INCLUDES DIRECT COSTS ONLY FOR RESEARCH GRANTS



#### RESEARCH GRANTS \*

DOLLARS AWARDED	53,640			37,578			78°466 18°516		27,256		45,486
TITLE OF RESEARCH PROPOSAL	MEMBRANE SPECIFICITIES RELATED TO NEOPLASIA EXTRACHROMOSOMAL ELEMENTS IN GRAM NEGATIVE BACTERIA	80,835 80,835	80,835	INTEGRATED REGULATION OF MYOCARDIAL ENERGY METABOLISM	37,578 37,578	37,578	CALIFORNIA AT BERKELEY LIQUID XENON MULTI-WIRE RADIOISOTOPE CAMERA FERTILITY CONTROL IN PREINDUSTRIAL JAPAN	96,982 96,982	CALIFORNIA AT IRVINE MECHANISMS OF FIBRINGGEN SYNTHESIS	27,256 27,256	OVARIAN GROWTH FACTOR AND CONTROL OF OVARIAN TUMORS STUDIES USING PURIFIED ACETYLCHOLINE RECEPTOR
GRANT NUMBER PRINCIPAL INVESTIGATOR	ALABAMA BIRMINGHAM UNIVERSITY OF ALABAMA IN BIRMINGHAM CA15338-01 ACTON, RONALD T AII1456-01 CURTISS, ROY III	INSTITUTION TOTAL 2 CITY TOTAL 2	STATE TOTAL 2	ARIZONA TUCSON UNIVERSITY OF ARIZONA HL16111-01 OLSON, MERLE S	INSTITUTION TOTAL 1 CITY TOTAL 1	STATE TOTAL 1	CALIFORNIA BERKELEY UNIVERSITY OF CALIFORNIA SYSTEMUNIVERSITY OF GM20115-01 HD07505-01 SMITH, THOMAS F	INSTITUTION TOTAL 2 CITY TOTAL 2	IRVINE UNIVERSITY OF CALIFORNIA SYSTEMUNIVERSITY OF HL16198-01 OTIS, PETER F	INSTITUTION TOTAL 1 CITY TOTAL 1	LA JOLLA SALK INSTITUTE FOR BIOLOGICAL STUDIES HD07651-01 GOSPODAROWICZ, DENIS J NS11323-01 LINDSTROM, JON M

86,686

DOLLARS AWARDED INCLUDE DIRECT COST ONLY

INSTITUTION TOTAL

TITLE OF RESEARCH PROPOSAL	
PRINCIPAL INVESTIGATOR	
GRANT NUMBER	A T NOOD T SA O

GRANT NUMBER PRINCIPAL INVESTIGATOR	TITLE OF RESEARCH PROPOSAL	DOLLARS
OF CALIFORNIA SYSTEMUNIVERSITY OF KOOYMAN, GERALD L SPITZER, NICHOLAS C	F CALIFORNIA AT SAN DIEGO COMPARATIVE STUDY OF AIRWAY STRUCTURES AND LUNG FUNCTION ANATOMY AND PHYSIOLOGY OF EMBRYONIC SENSORY NEURONS	36,902
INSTITUTION TOTAL 2 CITY TOTAL 4	93,687 180,373	
LOS ANGELES CHILDREN'S HOSPITAL OF LOS ANGELES CA15039-01 BENEDICT, WILLIAM F	CYTOGENETIC DIAGNOSIS AND ETIOLOGY OF HUMAN CANCER	25,025
INSTITUTION TOTAL 1	25,025	
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENTMARTIN HL15997-01 WILLIAMS, RICHARD A	MARTIN LUTHER KING, JR. GENERAL HOSPITAL A COMPREHENSIVE HOSPITAL-COMMUNITY SICKLE CELL CENTER	544,259
INSTITUTION TOTAL 1	544,259	
UNIVERSITY OF CALIFORNIA SYSTEMUNIVERSITY OF HLIS659-01A1  AM16611-01A1  CARLISLE, EDITH M  CA15940-01  SALSER, WINSTON A  HLIS605-01A1  WALTER, DONALD 0	F CALIFORNIA AT LOS ANGELES  DYNAMIC ISOLATION STUDIES OF CONTROL OF RESPIRATION  STUDY OF PHYSIOLOGICAL ROLE OF SILICON  DETERMINING SEQUENCES FROM HEMOGLOBIN MESSENGER RNA  SITE OF AIRWAY OBSTRUCTION AND CONTROL OF VENTILATION  ARTIFACT REDUCTION FOR CHILDREN'S EEG'S	60,813 36,426 49,352 19,800 19,335
INSTITUTION TOTAL 5	185,726	
OF SOUTHERN CALIFORNIA DAVIS, RICHARD L YAMASHIRO, STANLEY M ZAWACKI, BRUCE E	ULTRASTRUCTURAL STUDIES OF C-VIRUS MURINE MYELOPATHY OPTIMAL ESTIMATION OF LUNG DISTRIBUTION FUNCTIONS CORTICOSTERDIDS AND SMOKE-INHALATION PATHOLOGY	21,366 24,500 16,615
INSTITUTION TOTAL 3 CITY TOTAL 10	62,481 817,491	
MENLO PARK STANFORD RESEARCH INSTITUTE CA15029-01	SYNTHESIS OF SEPTACIDIN ANALOGS AS ANTITUMOR DRUGS	23,450
INSTITUTION TOTAL 1	23,450 23,450	

### NIH RESEARCH GRANTS \*

DOLLARS	6,136 50,368 33,346 45,941 31,408 36,832		29,670		5,000			13,688		35,678		21,150
TITLE OF RESEARCH PROPOSAL	CALIFORNIA AT SAN FRANCISCO INDEX TO COMPUTERIZED TEACHING IN THE HEALTH SCIENCES STUDY OF ABNORMAL HEMOGLOBIN SYNTHESIS LYSYL OXIDASE MEDIATED COLLAGEN CROSS-LINKING THE AFFERENT ARC OF CORNEAL IMMUNOLOGIC REACTIONS EXPERIMENTAL NEUROPATHIES; CORRELATIVE STUDIES EFFECTORS OF CHOLESTEROL SYNTHESIS	204,031	STRUCTURE AND FUNCTION OF SARCOPLASMIC RETICULUM	29,670 233,701	SUPPORT FOR SYMPOSIUM ON CANCER CHEMOTHERAPY	5,000 5,000	,384,253	EFFECTS OF RAT ALPHA-2 MACROGLOBULIN ON CELL ADHESION	13,688 13,688	AL THE SYMPTOMATIC TREATMENT OF ASTHMA BY RELAXATION	35,678	CARDIOPULMONARY ADAPTATION OF NEWBORNS TO ALTITUDE
GRANT NUMBER PRINCIPAL INVESTIGATOR	CALIFORNIA SAN FRANCISCO UNIVERSITY OF CALIFORNIA SYSTEM——UNIVERSITY OF LM01855-01 AM16666-01 AM16424-01A1 AM16424-01A1 SIGGL, ROBERT EY01121-01 SMOLIN, GILBERT NS11386-01 WATSON, JOHN A	INSTITUTION TOTAL 6	UNIVERSITY OF THE PACIFIC HL15393-01 INESI, GIUSEPPE	INSTITUTION TOTAL 1 CITY TOTAL 7	SANTA MONICA INTRA-SCIENCE RESEARCH FOUNDATION CA15367-01	INSTITUTION TOTAL 1	STATE TOTAL 26	COLORADO COLORADO SPRINGS COLORADO COLLEGE HD07478-01 HEIM, WERNER G	INSTITUTION TOTAL 1 CITY TOTAL 1	DENVER CHILDREN'S ASTHMA RESEARCH INSTITUTE AND HOSPITAL HL15620-01A1 ALEXANDER, A BARNEY	INSTITUTION TOTAL 1	UNIVERSITY OF COLORADO MEDICAL CENTER HL15430-01 COTTON, ERNEST K

44,873

#### NIH RESEARCH GRANTS \*

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TITLE OF RESEARCH PROPOSAL	TRANSFORMATION OF CELLS BY CHEMICAL CARCINDGENS	42,541 78,219	91,907	PORPHYRIN AND CORRINOID BIOSYNTHESIS APPLICATION OF FLUORESCENT NUCLEDTIDE AFFINITY PROBES	132,812 132,812	STUDY OF GENETICS IN VITRO CINEPHOTOGRAPHY USING A LASER LIGHT SOURCE	197,716 197,716	330,528	LATERAL LINE PROJECTIONS VITAMIN TRANSPORT	25,937	25,937	THE LUNGS LINING LAYER: SYNTHESIS AND SECRETION
GRANT NUMBER PRINCIPAL INVESTIGATOR	COLORADO DENVER UNIVERSITY OF COLCRADO MEDICAL CENTER CA15109-01 FINK, LOUIS M	INSTITUTION TOTAL 2 CITY TOTAL 3	STATE TOTAL 4	CONNECTICUT NEW HAVEN YALE UNIVERSITY AM17014-01 GM20230-01 WARD, DAVID C	INSTITUTION TOTAL 2 CITY TOTAL 2	STORRS UNIVERSITY OF CONNECTICUT CA14733-01 HL15036-01A1 STOY, ROBERT L, JR	INSTITUTION TOTAL 2 CITY TOTAL 2	STATE TOTAL 4	DELAWARE NEWARK UNIVERSITY OF DELAWARE NS11272-01 GM19620-01 WHITE, HAROLD 8, III	iDOLLARS AWARDED INCLUDE DIRECT COST ONLY CITY TOTAL	STATE TOTAL 2	DIST OF COL WASHINGTON GEORGE WASHINGTON UNIVERSITY HI 14021-01

DOLLARS AWARDED			23,632 72,360		343,691 94,365 59,380		34,338		33,532		
TITLE OF RESEARCH PROPOSAL	44,873 44,873	44*873	7 OF FLORIDA GENE EXPRESSION DURING OOGENESIS AND EMBRYOGENESIS CELLULAR MECHANISMS IN TUMOR-SPECIFIC IMMUNITY	95,992 95,992	MIAMI COMPREHENSIVE SICKLE CELL CENTER ENVIRONMENTAL BLADDER CARCINOGENS IMMUNOLOGY OF CANCER OF THE URINARY BLADDER	497,436 497,436	NON-INVASIVE EVALUATION OF CARDIAC FUNCTION	34,338 34,338	TATE UNIVERSITY POPULATION-POLICY LINKAGES IN CITIES AND SUBURBS	33+532 33+532	461,298
PRINCIPAL INVESTIGATOR		1	FLORIDA SYSTEMUNIVERSITY DAVIS, FRANCIS C SMITH, RICHARD T	2 2	HARKNESS, DONALD R RADOMSKI, JACK L SIGEL, MICHAEL M	m m	CENTER GREENBERG, JACK J	1	TALLAHASSEE STATE UNIVERSITY OF FLORIDA SYSTEMFLORIDA STAT HD07629-01 DYE, THOMAS R		,
GRANT NUMBER	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	FLORIDA GAINESVILLE STATE UNIVERSITY OF F HD07659-01 CA15334-01	INSTITUTION TOTAL CITY TOTAL	MIAMI UNIVERSITY OF MIAMI HL15999-01 CA14927-01A2 CA14957-01	INSTITUTION TOTAL CITY TOTAL	MIAMI BEACH MOUNT SINAI MEDICAL ( HL15780-01	INSTITUTION TOTAL CITY TOTAL	TALLAHASSEE STATE UNIVERSITY OF F HD07629-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL

#### NIH RESEARCH GRANTS \*

		SEAR	DOLLARS
GRANT NUMBER	PRINCIPAL INVESTIGATOR	TITLE OF RESEARCH PROPOSAL	AWARDED
GEDRGÍA ATLANTA EMORY UNIVERSŤÍY CA14162-01Å: HL14904-01-:	GLAZER, ROBERT I NUTTER, DONALD D	CARCINDGEN INTERACTIONS IN REGENERATING LIVER CIRCULATORY REGULATION DURING STATIC MUSCULAR EXERCISE	24,313
INSTITUTION TOTAL CITY TOTAL	2.2	45,843 45,843	
STATE TOTAL	2	45,843	
HAWAII HONOLULU UNIVERSITY OF HAWAII HL15991-01	SYSTEMUNIVERSITY OF HAW NGRTON, TED R	AII AT MANDA EVALUATION OF HEART STIMULANTS IN SEA ANEMONES	21,020
INSTITUTION TOTAL CITY TOTAL	prof. prof.	21,020 21,020	
STATE TOTAL	1	21,020	
ILLINOIS CHICAGO NORTHWESTERN UNIVERSITY CA15434-01 KA	ITY KAHAN, BARRY D SCHWARTZ, NEENA B	ANTIGENIC STIMULUS IN HUMAN COLON CARCINOMA IMMUNITY ENVIRONMENTAL AND HORMONAL INTERPLAY OF OVULATION	48,826
INSTITUTION TOTAL	2	115,666	
UNIVERSITY OF CHICAGO HL15239-01A1 HL16005-01 GM21184-01	ANAGNOSTOPOULOS, CONSTANT BOWMAN, JAMES E RINGO, GEGRGE R	INE GROWTH IN VASCULAR GRAFTS SUPPORT FOR COMPREHENSIVE SICKLE CELL CENTER AN ION MICROPROBE ANALYZER FOR BIOLOGY	19,903 775,223 62,710
INSTITUTION TOTAL CITY TOTAL	ന ഹ	857,836 973,502	
UNIVERSITY OF ILLIND HD07303-01 HL16101-01 HL16059-01	OF ILLINOIS SYSTEMUNIVERSITY OF I ASHER, STEVEN R GENNIS, ROBERT B JONAS, ANA	LLINOIS AT URBANA STUDY OF DEVELOPMENT OF ABILITY TO COMMUNICATE PROTEIN-LIPID INTERACTION STRUCTURE AND FUNCTION OF SERUM LIPOPROTEINS	16,028 27,910 31,189
INSTITUTION TOTAL	es.	75,127	

DOLLARS AWARDED INCLUDE DIRECT COST ONLY

DOLLARS AWARDED	16,590 30,193 25,456	12,050	16,766	7,460	30,697
TITLE OF RESEARCH PROPOSAL 75,127	INDIANAPOLIS THE DYNAMICS OF MICROCIRCULATORY FUNCTION THE ROLE OF HAGEMAN FACTOR IN FIBRINOLYSIS PULMONARY VASCULAR AND LEFT ATRIAL BAROREFLEXES 72,239	STUDIES ON PLASMINOGEN ISOZYMES AND STREPTOKINASE 12,050 84,289	IMMUNDDIAGNOSIS OF TRICHINIASIS 16,766 16,766	SYNTHESIS AND BIOSYNTHESIS OF CEPHALOTAXINE 7,460 7,460	STUDIES ON THE CHEMORECEPTOR REFLEX
PRINCIPAL INVESTIGATOR 3 7	SYSTEM——INDIANA UNIVERSITY AT I FRIEDMAN, JULIUS J IATRIDIS, PANAYOTIS G LLOYD, THOMAS C, JR	DAME CASTELLINO, FRANCIS J 1 1	AND TECHNOLOGY WILLIAM J	BAYS, J PHILIP 1	HEISTAD, DONALD D
GRANT NUMBER CITY TOTAL STATE TOTAL	INDIANA INDIANAPOLIS INDIANA UNIVERSITY S HL16094-01 HL15425-01A1 HL15694-01 INSTITUTION TOTAL CITY TOTAL	NOTRE DAME UNIVERSITY OF NOTRE HL15747-01 INSTITUTION TOTAL CITY TOTAL STATE TOTAL	IOWA AMES IOWA STATE UNIVERSITY OF SCIENCE AI11606-01A1 INSTITUTION TOTAL CITY TOTAL 1	GRINNELL COLLEGE GRINNELL COLLEGE GR20368-01 INSTITUTION TOTAL CITY TOTAL	IOWA CITY UNIVERSITY OF IOWA HL16066-01

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		3	DOLLARS
GRANT NUMBER	PRINCIPAL INVESTIGATOR	TITLE OF RESEARCH PROPOSAL	AWARDED
IDWA IDWA CITY UNIVERSITY DF IDWA NSIO833-01A1 HL16149-01 AM16841-01	LORKOVIC, HRVOJE R MARK, ALLYN L SCHEDL, HARGLD.P	ANALYSIS OF CHANGES IN MUSCLES CAUSED BY DENERVATION VENTRICULAR BARORECEPTORS IN CIRCULATORY CONTROL DUODENAL CALCIUM BINDING PROTEIN: ACTIONS AND CONTROL	17,890 35,157 42,320
INSTITUTION TOTAL CITY TOTAL	44	126,064 126,064	
STATE TCTAL	9	150,290	
KANSAS KANSAS CITY UNIVERSITY OF KANSAS AM16968-01	WELLING, LARRY W	ANALYTIC FORMULATION OF TRANSPORT IN SINGLE NEPHRONS	28,508
INSTITUTION TOTAL CITY TOTAL		28,508 28,508	
STATE TOTAL	1	28,508	
KENTUCKY LEXINGTON UNIVERSITY OF KENTUCKY HL15528-01	KY KOTCHEN, THEODORE A	RENIN KINETICS IN HYPERTENSIVE AND UREMIC PLASMA	18,674
INSTITUTION TOTAL CITY TOTAL		18,674 18,674	
STATE TOTAL	1	18,674	
LOUISIANA NEW ORLEANS TULANE UNIVERSITY AII1645-01	MALEK, EMILE A	MALACOLOGICAL STUDIES IN LOUISIANA AND TEXAS	11,899
INSTITUTION TOTAL CITY TOTAL		11,899 11,899	
STATE TOTAL	1	11,899	
DOLLARS AWARDED I	DOLLARS AWARDED INCLUDE DIRECT COST ONLY		

DOLLARS	14,580 18,450 19,889 15,505			39,992 44,680 52,390 23,976 32,906 92,503 28,514		25,488			23,186	
OR TITLE OF RESEARCH PROPOSAL	MAINE AT OROND AMINO ACID TRANSPORT SYSTEMS IN INTESTINE ELECTROMAGNETIC FIELD ORIENTATION OVIPOSITION ATTRACTANTS OF AEDES TRISERIATUS SONIC TECHNIQUES FOR BIOLOGICAL CELL DISPERSAL	68,424 68,424	68,424	THE NATIONAL TEMPORAL BONE BANKS CENTER ASPIRATION PNEUMONIA: PATHOPHYSIOLOGY AND TREATMENT SUPPORT FOR PROGRAM FOR CONTROL OF PROSTATIC CANCER TRACER TECHNIQUES IN DIAGNOSIS OF ACUTE CHOLECYSTITIS HORMONAL CONTROL OF LIPID AND LIPOPROTEIN SYNTHESIS STUDY OF THE IMMUNOPATHOGENESIS OF VISNA ANALYSIS OF INTERACTION BETWEEN CNS VASOMOTOR SYSTEMS STUDY OF ROLE OF ANGIOTENSIN IN HYPERTENSION	343,985	OF MARYLAND PROFESSIONAL SCHOOLS STUDY OF GLYCOLYTIC ENZYMES BOUND TO MEMBRANES CARCINOGENESIS OF LARGE BOWEL CANCER IN ANIMALS	51,819 395,804	395,804	RSITY OF MASSACHUSETTS AT AMHERST A GENETIC APPROACH TO MEMBRANE ASSEMBLY	23,186 · 23,186
GRANT NUMBER PRINCIPAL INVESTIGATOR	MAINE ORONO UNIVERSITY OF MAINE SYSTEMUNIVERSITY, OF MAINI AM15745-01A1 LERNER, JOSEPH NSI1276-01 MC CLEAVE, JAMES D AI11740-01 MC DANIEL, IVAN N GM20514-01 RGONEY, JAMES A	INSTITUTION TOTAL 4 CITY TOTAL 4	STATE TOTAL 4	MARYLAND BALTIMORE JOHNS HOPKINS UNIVERSITY NS11447-01 CAMERON, JOHN E CAMERON, JOHN L CAMERON, JOHN L CAMERON, JOHN L CAMERON, SIGN L CARSON, STEVEN M MARGOLIS, SIMEON NS11451-01 NS11451-01 SCHRAMM, LAWRENCE P HL15349-01A1 WALKER, W GORDON	INSTITUTION TOTAL 8	UNIVERSITY OF MARYLAND SYSTEMUNIVERSITY OF GM19394-01A1 KIRTLEY, MARY E CA14975-01 REUBER, MELVIN D	INSTITUTION TOTAL 2 CITY TOTAL 10	STATE TOTAL 10	MASSACHUSETTS AMHERST UNIVERSITY OF MASSACHUSETTS SYSTEMUNIVERSITY GM20909-01 MASON, THOMAS L	INSTITUTION TOTAL 1 CITY TOTAL 1

## NIH RESEARCH GRANTS \*

DOLLARS AWARDED INCLUDE DIRECT COST ONLY

#### RESEARCH GRANTS \*

0 H H H H H H H H H H H H H H H H H H H	TITLE OF RESEARCH PROPOSAL	AWARDED
DVORAK, ANN M	BASOPHIL/MAST CELL FUNCTION IN THE CONTROL OF CANCER	46,930
INSTITUTION TOTAL 1 CITY TOTAL 18	46,930 1,019,019	
CAMBRIDGE BIO-RESEARCH INSTITUTE CA15033-01A1 HOMBURGER, FREDDY	A HAMSTER MODEL FOR HUMAN BLADDER CANCER	33,518
INSTITUTION TOTAL 1	33,518	
HARVARD UNIVERSITY AM17255-01 ITO, SUSUMU	STUDY OF DISSOCIATED AND SEPARATED GASTRIC CELL TYPES	31,833
INSTITUTION TOTAL 1	31,833	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY NS11000-01	SIGNAL TRANSMISSION IN THE AUDITORY SYSTEM	56,327
INSTITUTION TOTAL 1 CITY TOTAL 3	56,327 121,678	
WALTHAM BRANDEIS UNIVERSITY GM20275-01	PHOSPHORESCENT TRIPLET STATE OF POLYNUCLEOTIDES	18,475
INSTITUTION TOTAL 1 CITY TOTAL 1	18,475 18,475	
WOODS HOLE MARINE BIGLOGICAL LABORATORY AM16793-01 GM20644-01 STEPHENS, RAYMOND E	REGULATION OF METABOLISM THE FORMATION AND FUNCTION OF MICROTUBULES	2,000
INSTITUTION TOTAL 2 CITY TOTAL 2	30,455 30,455	

DOLLARS AWARDED INCLUDE DIRECT COST ONLY

WORCESTER UNIVERSITY OF MASSACHUSETTS SYSTEM--UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AM17456-01 FLATT, JEAN-PIERRE FAT MOBILIZATION AND PROTEIN SPARING THERAPY

45,358

CITY TOTAL

HL16008-01

DETROIT

EAST LANSING

HD06948-01A1

HL 16052-01 HL16055-01

CITY TOTAL

UNIVERSITY

ANN ARBOR MICHIGAN

HL16200-01 HD07689-01 AI11829-01

GRANT NUMBER

CITY TOTAL

HL15215-01A1

AM16431-01

MINNEAPOLIS

MINNESOTA

CA15062-01 HL 15265-01

GRANT NUMBER	PRINCIPAL INVESTIGATOR	TITLE OF RESEARCH PROPOSAL	DOLLARS AWARDED
MINNESOTA MINNEAPOLIS UNIVERSITY OF MINNESOTA HL14969-01A2 EY01211-01 HL16430-01 HL16182-01 EY01197-01	DIETZMAN, RCNALD H DOUGHMAN, DONALD J KNOX, CHARLES K NICOLOFF, DEMETRE M RATHBUN, WILLIAM B	STUDY OF POST-TRAUMATIC PULMONARY INSUFFICIENCY ORGAN CULTURE OF CORNEAS REFLEX CONTROL OF RESPIRATION XYLOCAINE: CHRONIC INFUSION AND TOXICITY GLUTATHIONE METABOLISM IN OCULAR TISSUES	27,024 30,643 24,548 33,782 45,778
INSTITUTION TOTAL CITY TOTAL	σσ	1,697,245 1,697,245	
ROCHESTER MAYO FOUNDATION AM17238-01	SZURSZEWSKI, JOSEPH H	GASTRINS, NEUROTRANSMITTERS AND ANTRAL SMOOTH MUSCLE	25,870
INSTITUTION TOTAL		25,870 25,870	
SAINT PAUL UNIVERSITY OF MINNESOTA GM20884-01 FU GM19551-01	OTA FUCHS, JAMES A HARTL; DANIEL L	DEOXYRIBONUCLEOTIDE METABOLISM IN ESCHERICHIA COLI GENETIC STUDIES OF SEGREGATION-DISTORTER POPULATIONS	24,000
INSTITUTION TOTAL CITY TOTAL	0.0	39,000	
STATE TOTAL	12	1,762,115	
MISSISSIPPI JACKSON UNIVERSITY OF MISSIS	MISSISSIPPI MEDICAL CENTER CROWELL, JACK W	PHYSIOLOGY OF ACUTE STATES	19,437
INSTITUTION TOTAL CITY TOTAL	, pod pref	19,437 19,437	
STATE TOTAL	1	19,437	
MISSOURI COLUMBIA UNIVERSITY OF MISSOURI HL16017-01	JRI SYSTEMUNIVERSITY OF MISSOURI FOSSLIEN, EGIL	MISSOURI AT COLUMBIA AUTOMATED HEMOGLOBIN ELECTROPHORESIS	37,597
DOLLARS AWARDED 1	AWARDED INCLUDE DIRECT COST ONLY		

#### NIH RESEARCH GRANTS \*

GRANT NUMBER	PRINCIPAL INVESTIGATOR	TITLE OF RESEARCH PROPOSAL	DOLLARS
INSTITUTION TOTAL CITY TOTAL	1 1	37,597 37,597	
MISSOURI SAINT LOUIS WASHINGTON UNIVERSITY CA15241-01 NS11417-01	Y HILL, GEORGE J, II OGURA, JOSEPH H	CENTRAL ONCOLOGY GROUP CORE PROGRAM PROJECT IN COMMUNICATIVE DISORDERS	12,104
INSTITUTION TOTAL CITY TOTAL	2 5	122,817 122,817	
STATE TOTAL	٤	160,414	
MONTANA BOZEMAN MONTANA STATE UNIVERSITY CA15322-01	SITY REED, NORMAN D	ONCOGENESIS IN CONGENITALLY ATHYMIC MICE	17,106
INSTITUTION TOTAL CITY TOTAL	pri pri	17,106 17,106	
STATE TOTAL	1	17,106	
NEBRASKA OMAHA CREIGHTON UNIVERSITY HL15903-01 AM17125-01	LYNCH, HENRY T MAGEE, DONAL F	HEREDITARY PROGRESSIVE A-V CONDUCTION DEFECT THE SECRETION OF PEPSIN	35,000
INSTITUTION TOTAL CITY TOTAL	2 2	55,955 55,955	
STATE TOTAL	2	55,955	
NEW HAMPSHIRE DURHAM UNIVERSITY OF NEW HA	NEW HAMPSHIRE SYSTEMUNIVERSITY MORRISON, JAMES D	OF NEW HAMPSHIRE AMBIPHILIC CYCLODEPSIPEPTIDES	23,390
INSTITUTION TOTAL CITY TOTAL	11	23,390 23,390	

DOLLARS AMARDED INCLUDE DIRECT COST ONLY

DOLLARS AWARDED

NUMBER STATE TOTAL	PRINCIPAL INVESTIGATOR	TITLE OF RESEARCH PROPOSAL 23,390	AWARDED
NEW JERSEY NEW BRUNSWICK RUIGERSTHE STATE UNIVERSITY AII1290-01	VICTOR	METABOLISM AND BIOCHEMISTRY OF CULTURED MOSQUITO CELLS	17,250
		17,250 17,250	
AND DENTISTRY LAEMLE, LOIS 1		OF NEW JERSEY-NEW JERSEY MEDICAL SCHOOL K AN EXPERIMENTAL STUDY OF THE DEVELOPING VISUAL SYSTEM 25,880	25,880
MEDICINE AND DENTISTRY OF WEISS, HARVEY R	Y OF NEW .	NEW JERSEYRUTGERS MEDICAL SCHOOL NEW TECHNIQUE FOR REGIONAL O2 CONSUMPTION OF HEART	46,254
11		46,254 46,254	
m		89,384	
NEW MEXICO ALBUQUERQUE UNIVERSITY OF NEW MEXICO CA14052-01 KLIGERMAN, MORTON CA15036-01 REYES, PHILIP HL14843-01A1 SHANNON, ROGER	ORTON M P ER	PRECLINICAL STUDIES FOR PION RADIOTHERAPY STUDY OF A PHOSPHORIBOSYLTRANSFERASE FROM LEUKEMIC CELLS RESPIRATORY MUSCLE AFFERENTS IN RESPIRATORY CONTROL	602,145 25,202 22,474
നന		649,821 649,821	
т		649,821	
NIVERSITY SYS	TEMALBA ILLIAM E	NEW YORK ALBANY UNION COLLEGE AND UNIVERSITY SYSTEMALBANY MEDICAL COLLEGE HL15484-01 STEHBENS, WILLIAM E ANEURYSMS, ARTERIOVENOUS FISTULAS AND ATHEROSCLEROSIS	40,000

DOLLARS AWARDED INCLUDE DIRECT COST ONLY

	NIH RESEARCH GRANTS **	PAGE 16
GRANT NUMBER PRINCIPAL INVESTIGATOR	TITLE OF RESEARCH PROPOSAL	DOLLARS AWARDED
INSTITUTION TOTAL 1 CITY TOTAL 1	40,000 40,000	
NEW YORK BUFFALO NEW YORK STATE DEPARTMENT OF HEALTHROSWELL PARK CA14801-01 CA14812-01 DOYLE, DARRELL J CA15142-01 MIHICH, ENRICO CA1555-01 SANDBERG, AVERY A GM20454-01 WEISS, LEONARD	CHEMORIAL INSTITUTE  CHEMOTHERAPY AND REGULATION OF ONCOGENIC VIRUSES  MAMMARY CARCINGGENESIS  GENETIC REGULATION OF MOUSE LIVER ENZYMES  CANCER CHEMOTHERAPY AND IMMUNOLOGIC EFFECTS  CHROMOSOMES OF HUMAN BLADDER TUMORS  HUMAN GENE LINKAGE RELATIONSHIPS IN CELL HYBRIDS  THE EFFECT OF IMMUNOLOGIC FACTORS ON METASTASIS	260,000 186,230 52,302 74,697 39,868 45,000
INSTITUTION TOTAL 7	683,183	
STATE UNIVERSITY OF NEW YORK AT BUFFALO GM21045-01 SLAUNWHITE, W ROY, JR	THE STRUCTURE OF HUMAN TRANSCORTIN	17,975
INSTITUTION TOTAL 1 CITY TOTAL 8	17,975 701,158	
NEW YORK AMERICAN HEALTH FOUNDATION CAISCOCAL	MECHANICM OF ACTION OF COLON CARCINOGENESIS	147,025
ION TOTAL 1		
CITY UNIVERSITY OF NEW YORKBROOKLYN COLLEGE GM20596-01 LI, HSUEH-JEI	HELIX-COIL TRANSITION IN NUCLEOPROTEIN	15,312
INSTITUTION TOTAL 1	15,312	
CITY UNIVERSITY OF NEW YORKMOUNT SINAI SCHOOL HL15764-01 KIRCHBERGER, MADELEINE A	. OF MEDICINE CAMP DEPENDENT PROTEIN KINASE IN CARDIAC CONTRACTION	34,000
INSTITUTION TOTAL 1	34,000	
COLUMBIA UNIVERSITY HL16652-01 SUSSER, MERVYN W	ASTHMA AND AIR POLLUTION IN TWO INNER CITY AREAS	41,676
INSTITUTION TOTAL 1	41,676	

DOLLARS	30,536		265,636		20,520		38,259 357,656 395,000 59,265		25,781		110,050		28,565	
TITLE OF RESEARCH PROPOSAL	PHYSIOLOGICAL MECHANISMS OF SATIETY CHILDREN'S CANCER STUDY GROUP A	41,286	CORE GRANT FOR CANCER STUDIES	265,636	STUDY OF PERCEPTION DURING PURSUIT EYE MOVEMENTS	20,520	POLYCYCLIC CARCINGGEN-NUCLEIC ACID INTERACTIONS COAGULATION, FIBRINOLYSIS, HEMOSTASIS AND HEPATITIS STUDY OF ENVIRONMENTAL CANCER THE CONTROL OF BLADDER CANCER LYSOSOMAL PROTEASES AND CHRONIC PULMONARY DISEASE	888,976	BIOLOGY OF BONE MARROW CELLS - MEGAKARYOCYTES	25,781	FINE STRUCTURE OF SYNAPSES AND THEIR MODIFICATION HEMEPROTEIN INTERACTIONS: MODELS OF SICKLE HEMOGLOBIN	151,668 1,631,890	PERMEATION MECHANISM OF GASES FROM THE LUNG	28,565 28,565
PRINCIPAL INVESTIGATOR	EDICAL COLLEGE GIBBS, JAMES G, JR MILLER, DENIS R	2	ISEASES AND MEDICAL CENTER HOLLANDER, VINCENT P	1	SOCIAL RESEARCH MACK, ARIEN	-1	GEACINTOV, NICHOLAS E JOHNSON, ALAN J NELSON, NORTON TROLL, WALTER	5	FY FEDORKO, MARTHA E	1	PAPPAS, GEORGE D WITTENBERG, JONATHAN B	2	TECHNOLOGY JELLINEK, HANS H	11
GRANT NUMBER	NEW YORK NEW YORK CORNELL UNIVERSITY MEDICAL COLLEGE AM17240-01 GIBBS, JAMES CA14557-01 MILLER, DENIS	INSTITUTION TOTAL	HOSPITAL FOR JOINT DISEASES AND CA14194-01 HOLLANDER,	INSTITUTION TOTAL	NEW SCHOOL FOR SOCIAL EY01135-01	INSTITUTION TOTAL	NEW YORK LNIVERSITY CA14980-01 HL15596-01 CA13343-01 CA15315-01 HL15140-01A1	INSTITUTION TOTAL	ROCKEFELLER UNIVERSITY HL16271-01 F	INSTITUTION TOTAL	YESHIVA UNIVERSITY NS11431-01 HL15461-01	INSTITUTION TOTAL CITY TOTAL	POTSDAM CLARKSON COLLEGE OF T HL15726-01	INSTITUTION TOTAL CITY TOTAL

1.8

DOLLARS	26,240		20,846		23,570		28,750			18,126 15,960 20,072	
TITLE OF RESEARCH PROPOSAL	HUMAN AUTOSOMAL GENE LINKAGE	26,240 26,240	POLYARTHROPATHY IN SALMONELLA-INFECTED RATS	20,846 20,846	ANESTHESIA AND PATHWAYS OF BRAIN GLUCOSE OXIDATION	23,570 23,570	. LABORATORY RADIATION & HOST-IMMUNE DEFENSE MECHANISMS IN MALIGNANCY	28,750 28,750	2,501,019	ITY OF NORTH CARCLINA AT CHAPEL HILL FIBRINOLYTIC RESPONSE AND HABITUAL PHYSICAL ACTIVITY LONG-TERM COMPLICATIONS OF INDUCED ABORTIONS ORAL CONTRACEPTIVES AND HYPERTENSION	54,158 54,158
PRINCIPAL INVESTIGATOR	ER WEITKAMP, LOWELL R	pad ped	VOLKMAN, ALVIN		C INSTITUTE MOSS, GERALD		UPTON ASSOCIATED UNIVERSITIESBROOKHAVEN NATIONAL CA15298-01 BOND, VICTOR P	1 1	30	CAROLINA SYSTEMUNIVERSIT CASSEL, JCHN C SHACHTMAN, RICHARD WOODS, JAMES W	m m
GRANT NUMBER	NEW YORK ROCHESTER UNIVERSITY OF ROCHESTER GM19962-01	INSTITUT ON TOTAL CITY YOTAL	SARANAC LAKE TRUDEAU INSTITUTE AM17159-01	INSTITCTION TOTAL	TROY RENSSELAER POLYTECHNIC INSTITUTE GM20560-01 MOSS, GERAL	INSTITUTICN TOTAL CITY TOTAL	UPTON ASSOCIATED UNIVERSITI CA15298-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	NORTH CARCLINA CHAPEL HILL UNIVERSITY CF NORTH C HL16061-01 HD07214-01 HD07758-01	INSTITUTION TOTAL CITY TOTAL

DOLLARS AWARDED	25,630 24,384 34,384 34,255 27,875 27,875 38,586 9,950 27,457 26,215 36,000 600,734 44,157			201,810		25,803 48,020 18,886		24,449
TITLE OF RESEARCH PROPOSAL	EXPERIENCES WITH THE DUKE CURRICULUM RNA IN NORMAL AND NEOPLASTIC UROTHELIAL CELLS FETAL LUNG FLUID CHARACTERIZATION AND LAVAGE EFFECTS MOLECULAR PROPERTIES OF CARDIAC ADRENERGIC RECEPTORS SUPEROXIDE AND SUPEROXIDE DISMUTASE IN HUMAN DISEASE ROLE OF INFLAMMATORY HORMONES IN CHRONIC LUNG DISEASE WORKSHOP ON TRANSPLANTATION GENETICS OF PRIMATES FUNCTION OF ONCOGENIC VIRUSES IN BLADDER CANCER VIRUSES AND VIRUS-LIKE PARTICLES IN PROSTATIC TUMORS THE COLLAGEN AND ELASTIN OF CONNECTIVE TISSUE DISEASE COMPREHENSIVE CANCER CENTER SUPPORT GRANT ULTRASTRUCTURE OF NORMAL AND NEOPLASTIC UROTHELIUM	967,043 967,043	1,021,201	S HOSPITAL CINCINNATI SICKLE CELL ANEMIA CENTER	201,810 201,810	CHARACTERIZATION OF THE PROPERDIN SYSTEM RADIATION-INDUCED MODIFICATIONS IN PROTEIN SYNTHESIS DIAGNOSIS AND TREATMENT OF BLADDER CANCER IN MICE	92,709 92,709	DEVELOPMENT OF SELECTIVE B-ADRENORECEPTIVE AGENTS
PRINCIPAL INVESTIGATOR	ANLYAN, WILLIAM G BONAR, ROBERT A BRUMLEY, GEORGE W LEFKOWITZ, ROBERT J MC CORD, JOE M MENZEL, DANIEL B METZGAR, RICHARD S MICKEY, DON PAULSON, DAVID F PINNELL, SHELDON R SHINGLETON, WILLIAM W VERGARA, JUAN	13 13	16	MEDICAL CENTERCHILDREN'S GASTON, MARILYN	11	UNIVERSITY NAFF, GEORGE B OLEINICK, NANCY L SOLOWAY, MARK S	 	Y MILLER, DUANE D
GRANT NUMBER	NORTH CARCLINA DURHAM DUKE UNIVERSITY LM01778-01 CA14930-01 HL16448-01 HL16448-01 HL16037-01 AM17091-01 HL16264-01 AM17091-01 CA15292-01 CA15292-01 CA15417-01 AM17128-01 CA14236-01 CA14236-01 CA14236-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	OHIO CINCINNATI CHILDREN'S HOSPITAL P HL15996-01	INSTITUTION TOTAL CITY TOTAL	CLEVELAND CASE WESTERN RESERVE AI11333-01 CA15378-01 CA15412-01	INSTITUTION TOTAL CITY TOTAL	COLUMBUS OHIO STATE UNIVERSITY NS10896-01A1

	DOLLARS	27,974			27,000		34,281 19,416		89,746		21,951 38,697 25,000		
RESEARCH GRANTS *	TITLE OF RESEARCH PROPOSAL	WALL SHEAR STRESSES IN CORONARY VESSELS	52,423 52,423	346,942	STATE UNIVERSITY GENETICS AND PHYSIOLOGY OF DEVELOPMENTAL MUTANTS	27,000 27,000	SITY OF OREGON SYNTHESES OF POTENTIAL ANTITUMOR AND ANTIVIRAL AGENTS NEURO-ENDOCRINE STUDIES IN CELL CULTURE SYSTEMS	53,697 53,697	NEURAL INFLUENCE ON HYPOPHYSEAL-GONADAL FUNCTION	89,746	SITY OF OREGON MEDICAL SCHOOL PATHOLOGY OF LYMPHOID NEOPLASMS DERIVED FROM T & B CELLS UV-ABSORBING COMPONENTS IN URINE CARTILAGE-SELECTIVE RADIOCONTRAST AGENTS	85,648 175,394	256,091
	PRINCIPAL INVESTIGATOR	Y SMITH, C ROGER	. 22	9	EDUCATION SYSTEMOREGON BROWN, LYLE R		EDUCATION SYSTEMUNIVERSIT BOEKELHEIDE, VIRGIL C HERBERT, EDWARD	2 2 2	NDATION OF OREGON SPIES, HAROLD G		EDUCATION SYSTEMUNIVERSITY DAWSON, PETER J LIS, ACAM W RIKER, WILLIAM K	m 4	7
	GRANT NUMBER	OHIO COLUMBUS OHIO STATE UNIVERSITY HL16236-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	OREGON CORVALLIS OREGON STATE HIGHER I	INSTITUTION TOTAL CITY TOTAL	EUGENE OREGON STATE HIGHER E CA15004-01	INSTITUTION TOTAL CITY TOTAL	PORTLAND MEDICAL RESEARCH FOUNDATION OF OREGON HD07602-01 SPIES, HAROLD G	INSTITUTION TOTAL	OREGON STATE HIGHER E CA15072-01 HD07378-01 GM20022-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL

DOLLARS AWARDED	34,705		306,000		19,000		10,000		45,085 15,000		15,356		30,623 ERASE 37,038 24,000		64,657		
TITLE OF RESEARCH PROPOSAL	INVESTIGATIONS OF VITAMIN B6 IN DOWN'S SYNDROME	34,705 34,705	PEDIATRIC CANCER RESEARCH CENTER	306,000	ILADELPHIA EASTERN COOPERATIVE ONCOLOGY GROUP	19,000	THIRD INTERNATIONAL SYMPOSIUM ON ATHEROSCLEROSIS	10,000	PHARMACOLOGIC STUDIES OF CORONARY OCCLUSION ARRHYTHMIAS ESTABLISHMENT OF CELL CULTURES OF HUMAN TUMOR UROTHELIUM	60,085	PROGNOSTIC FACTORS IN LUNG CANCER	15,356	ENZYMATIC MODIFICATION OF CARBOXYL RESIDUES IN PROTEIN PURIFICATION & CHARACTERIZATION OF HUMAN PLASMA LECITHIN CHOLESTEROL ACYL TRANSFERASE MEASUREMENT OF LIGAND BINDING TO ASSOCIATING ENZYMES	91,661	BIOCHEMICAL EVENTS PRECEDING BIRTH DEFECTS	64,657	
PRINCIPAL INVESTIGATOR	COLEMAN, MARY P	<b>н</b> н	. OF PHILADELPHIA EVANS, AUDREY E		OLLEGE AND HOSPITAL OF PHILAD BRODSKY, ISADORE		HOLMES, WILLIAM L		PENNSYLVANIA ROBERTS, JAY ZAJAC, BARBARA A	2	MEDICAL SOCIETY WEISS, WILLIAM		KIM, SANGDUK LACKO, ANDRAS G ROXBY, ROBERI	6	IIVERSITY CHEPENIK, KENNETH P		DOLLARS AWARDED INCLUDE DIRECT COST ONLY
GRANT NUMBER	PENNSYLVANIA LANCASTER ST. JOSEPH HCSPITAL NSIO720-01A1	INSTITUTION TOTAL CITY TOTAL	PHILADELPHIA CHILDREN'S HCSPITAL OF PHILADELPHIA CA14489-01 EVANS, AUDREY	INSTITUTION TOTAL	HAHNEMANN MEDICAL COLLEGE AND CA13611-01A1	INSTITUTION TOTAL	LANKENAU HOSPITAL HL16252-01	INSTITUTION TOTAL	MEDICAL COLLEGE OF PENNSYLVANIA HL16283-01 ROBERTS, J CA15477-01 ZAJAC, BAR	INSTITUTION TOTAL	PHILADELPHIA COUNTY MEDICAL CA14974-01 WEISS,	INSTITUTION TOTAL	TEMPLE UNIVERSITY GM2C594-01 HL14924-01A1 AM17262-01	INSTITUTION TOTAL	THGMAS JEFFERSON UNIVERSITY HD08433-01 CHEPEN	INSTITUTION TOTAL	DOLLARS AWARDED

DOLLARS AWARDED	39,440 257,648 54,850 19,556		433,546		53,089		21,845		23,759			5,000		
TITLE OF RESEARCH PROPOSAL	ELECTROPHYSIOLOGY OF FIBRILLATION ETIOLOGY AND PATHOGENESIS OF MULTIPLE SCLEROSIS SICKLE CELL DISEASE: GALLSTONES AND LIVER DYSFUNCTION 5-BROMODEOXYURIDINE EFFECTS ON MARROW AND TUMOR CELLS	371,494	ETIGLOGY AND PATHOGENESIS OF MULTIPLE SCLEROSIS	433,546 1,371,799	INDICATIONS FOR TONSILLECTOMY AND ADENOIDECTOMY	53,089	LATENCY AND REACTIVATION OF CYTOMEGALOVIRUS INFECTION THE DEVELOPMENT OF SPACE PERCEPTION IN CHILDREN	35,774 88,863	FACTORS INFLUENCING SUBSTRATE UPTAKE BY THE LUNG	23,759 23,759	1,519,126	SUPPORT FOR CONFERENCE ON THE SMOOTH MUSCLES	5,000	
GRANT NUMBER PRINCIPAL INVESTIGATOR	PENNSYLVANIA PHILADELPHIA UNIVERSITY OF PENNSYLVANIA HL16076-01 MOORE, E NEIL NS11037-01 SILBERBERG, DONALD H AM16549-01 SOLOWAY, ROGER D CA14985-01 ZEIDMAN, IRVING	INSTITUTION TOTAL 4	WISTAR INSTITUTE OF ANATOMY AND BIOLOGY NS11036-01 KOPROWSKI, HILARY	INSTITUTION TOTAL 1 CITY TOTAL 15	PITTSBURGH CHILDREN'S HOSPITAL OF PITTSBURGH HD07403-01 PARADISE, JACK L	INSTITUTION TOTAL 1	UNIVERSITY OF PITTSBURGH AI11798-01 HO, MONTO HD07307-01 ROSINSKI, RICHARD R	INSTITUTION TOTAL 2 CITY TOTAL 3	UNIVERSITY PARK PENNSYLVANIA STATE UNIVERSITY HL16247-01 RH0ADES, RCDNEY A	INSTITUTION FOTAL 1 CITY TOTAL 1	STATE TOTAL . 20	RHODE ISLAND KINGSION GORDON RESEARCH CONFERENCES HL16447-01 BARR, LLOYD	INSTITUTION TOTAL 1	DOLLARS AWARDED INCLUDE DIRECT COST ONLY

GRANT NUMBER PRI	PRINCIPAL INVESTIGATOR 1	TITLE OF RESEARCH PROPOSAL 5,000	DOLLARS AWARDED
RHODE ISLAND PROVIDENCE ROGER WILLIAMS GENERAL HOSPITAL CA13943-01	L HOSPITAL CALABRESI, PAUL	SUPPORT FOR CLINICAL CANCER RESEARCH CENTER	591,271
INSTITUTION TOTAL CITY TOTAL	1	591,271 591,271	
STATE TOTAL	2	596,271	
SOUTH CAROLINA CHARLESTON MEDICAL UNIVERSITY OF SOUTH CAROLINA HL15782-01 MARKWALD, ROGER	SOUTH CAROLINA MARKWALD, ROGER R	MUCOPOLYSACCHARIDE METABOLISM IN CARDIAC ANOMALIES	24,305
INSTITUTION TOTAL CITY TOTAL	r e	24,305 24,305	
STATE TOTAL	1	24,305	
OF TENNESSEE : FOR	TENNESSEE SYSTEMUNIVERSITY OF 1 FORRESTER, JOHN H VAN HOOK, WILLIAM A	TENNESSEE AT KNOXVILLE FLOW CHARACTERISTICS IN SIMULATED ARTERIAL STENDSES AQUEDUS SOLVENT ISOTOPE EFFECTS - PERMANENT GAS SOLUTES	18,504
INSTITUTION TOTAL CITY TOTAL	2.2	35,901 35,901	
OF TENNESSEE	TENNESSEE SYSTEMUNIVERSITY OF 1 COX, RAY	TENNESSEE MEDICAL UNITS DNA REPAIR AND CARCINOGENESIS	15,915
INSTITUTION TOTAL CITY TOTAL	1	15,915 15,915	
UNIVERSITY CON	CONIGLIO, JCHN G	LIPID CHEMISTRY AND METABOLISM IN REPRODUCTIVE TISSUE	32,159

PAGE

24

AP	8,10			(1) 41						
TITLE OF RESEARCH PROPOSAL	INFECTIONS & COAGULATION: CELLULAR & HUMORAL FACTORS RENIN: PURIFICATION, CHARACTERIZATION AND ASSAY STUDIES OF THE SYNOVIAL RESPONSE TO ACUTE TRAUMA	120,565 120,565	172,381	AS AT AUSTIN PHOTOPERIODIC CONTROL OF REPRODUCTION MAN-COMPUTER INTERACTIVE ANALYSIS OF CHROMOSOMES	87,777 87,777	TEXAS HEALTH SCIENCE CENTER AT DALLAS  LIPOPROTEIN METABOLISM IN RELATION TO ATHEROSCLEROSIS  CONTROL OF CHOLESTEROL SYNTHESIS IN HYPERLIPIDEMIA  GASTRIC ACID SECRETION AND BUFFER CONTENT AFTER EATING  METABOLIC STUDY OF PEDIATRIC PARENTERAL ALIMENTATION  ROLE OF AIR POLLUTANTS IN AIR-BORNE INFECTION  DEVELOPMENT OF ANTITHROMBOGENIC MEMBRANE OXYGENATORS  ORGAN DISTRIBUTION OF CO WITH IA COUNTERPULSATION	296,199 296,199	ESTROGEN RECEPTORS AND REPRODUCTIVE FUNCTIONS STUDY OF HORMONE-CONTROLLED SEX-DRGAN DIFFERENTIATION	74,189	OF TEXAS GRADUATE SCHOOL OF BIOMEDICAL SCIENCES AT HOUSTON REGULATION OF PINEAL ENZYMIC ACTIVITY BY SEX STEROIDS
PRINCIPAL INVESTIGATOR	Y HAWIGER, JACK J INAGAMI, TADASHI ROSENTHAL, RONALD E	+ +	7	SYSTEMUNIVERSITY OF TEXAS MENAKER, MICHAEL RICHARDSON, RICHARD H	2 2	SYSTEM——UNIVERSITY OF TE) BILHEIMER, DAVID W BRGWN, MICHAEL S FORDTRAN, JOHN S MIZE, CHARLES E SOUTHERN, PAUL M, JR SUGG, WINFRED L WATSON, JOHN T	7	MEDICINE CLARK, JAMES TENG, CHING-SUNG	2	SYSTEMUNIVERSITY OF TE) PRESLOCK, JAMES P
GRANT NUMBER	TENNESSEE NASHVILLE VANDERBILT UNIVERSITY HL16646-01 HL16114-01 AM17475-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	TEXAS AUSTIN UNIVERSITY OF TEXAS S HD07727-01 GM20028-01	INSTITUTION TOTAL CITY TOTAL	DALLAS UNIVERSITY OF TEXAS S HL15949-01 HL16024-01 AM16816-01 HD07707-01 ES01028-01 HL15682-01	INSTITUTION TOTAL CITY TOTAL	HOUSTON BAYLOR COLLEGE OF MED HD08436-01 HD08218-01	INSTITUTION TOTAL	UNIVERSITY OF TEXAS S HD07422-01

#### MESEARCH GRANTS \*

DOLLARS	29,270			23,000		30,745 39,710		30,654 45,077 56,183 79,555			19,036
TITLE OF RESEARCH PROPOSAL	Y OF UTAH Genetic and molecular studies of Bacterial Behavior	43,670	54,380	FRSITY TAUTOMERIC CATALYSISA MODEL OF ENZYME CATALYSIS	23,000 23,000	PROJECTIONS OF THE MIDBRAIN RETICULAR FORMATION SYNTHESIS OF MYOSIN DURING MUSCLE DIFFERENTIATION	70,455 70,455	STUDIES ON THE PATHOGENESIS OF FEVER NEUROELECTRIC CORRELATES OF GONADOTROPIN RELEASE STUDY OF USE OF DELTA-9 THC WITH CANCER PATIENTS PRELIMINARY STUDIES FOR NEUTRON CANCER THERAPY TRIAL	211,469	304,924	MECHANISM OF AZIDE MUTAGENESIS
GRANT NUMBER PRINCIPAL INVESTIGATOR	UTAH SALT LAKE CITY UTAH STATE HIGHER EDUCATION SYSTEMUNIVERSITY GM19559-01	INSTITUTES, TOTAL 2 CITY TOTAL 2	STATE TOTAL 3	VIRGINIA BLACKSBURG VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERS GM19913-01 RONY, PETER R	INSTITUTION TOTAL 1	CHARLOTTESVILLE UNIVERSITY OF VIRGINIA NS11254-01 HD07796-01 EMERSON, CHARLES P, JR	INSTITUTION TOTAL 2 CITY TOTAL 2	RICHMOND VIRGINIA COMMONWEALTH UNIVERSITY AI10601-01A2 GOODALE, FAIRFIELD HD07749-01 JCHNSON, JAMES H CA15487-01 REGELSON, WILLIAM CA13921-01 ROGERS, CHARLES C	INSTITUTION TOTAL 4 CITY TOTAL 4	, STATE TOTAL 7	WASHINGTON PULLMAN WASHINGTON STATE UNIVERSITY ESO1009-01 KLEINHOFS, ANDRIS

19,036

INSTITUTION TOTAL
DOLLARS AWARDED INCLUDE DIRECT COST ONLY

DOLLARS	39,084		1,000		41,517 37,954 26,409 16,123		73,719			54,531 21,200 18,872 14,494 37,167 36,702 61,808	
TITLE OF RESEARCH PROPOSAL 19,036	NTER EPIDEMIOLOGIC STUDIES OF SUDDEN UNEXPECTED DEATH	39,084	ANATOMIC STUDY OF VARICOSE VEINS IN THE LEGS	1,000	DEVELOPMENT OF THE PRIMATE RETINA AND VISUAL THALAMUS METABOLIC ASPECTS OF LONG TERM PARENTERAL NUTRITION PATHOGENESIS OF BUBBLE AND CLOT FORMATION ECONOMIC STUDY OF FERTILITY DECLINE IN POSTWAR JAPAN	122,003	ON AND RESEARCH CHEMOTHERAPY FOR ADVANCED PROSTATIC CANCER	73,719 235,806	254,842	WISCONSIN-MADISON THE ETIOLOGY OF CANCER OF THE LARGE BOWEL CHEMORECEPTORS AND VENTILATORY CONTROL IMMUNOCHEMICAL STUDIES ON CARCINOGENIC MYCOTOXINS HUMAN VENTILATORY ADAPTATION TO MODERATE HYPOXEMIA EFFECT OF INFLUENZA-VIRUS HYBRIDS ON INFECTIONS STUDY AND THERAPY OF IMMUNE DEFICIENCY STUDY OF CHANGING PATTERNS OF FERTILITY	244,774 244,774
PRINCIPAL INVESTIGATOR 1	ORTHOPEDIC HOSPITAL AND MEDICAL CENT RAY, CHARLES G	-	EVOV, MATTHEW H	1	TON HENDRICKSON, ANITA E SCRIBNER, BELDING H SMITH, LYNWGOD S YAMAMURA, KOZO	4	TION FOR MEDICAL EDUCATION GIBBONS, ROBERT P	1 7	60	WISCONSIN SYSTEMUNIVERSITY OF UBALISH, EDWARD BISGARD, GERALD E CHU, FUN S DEMPSEY, JEROME A EASTERDAY, BERNARD C HONG, RICHARD SWEET, JAMES A	<u> </u>
GRANT NUMBER P	WASHINGTON SEATTLE CHILDREN'S ORTHOPEDIC HD07582-01	INSTITUTION TOTAL	PROVIDENCE HCSPITAL HL15933-01	INSTITUTION TOTAL	UNIVERSITY OF WASHINGTON EY01208-01 AM16849-01 SCR HL16254-01 SMI HD07552-01 YAM	INSTITUTION TOTAL	VIRGINIA MASCN FOUNDATION FOR CA15421-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	MISCONSIN MADISON UNIVERSITY OF MISCONSI CA14919-01A1 HL15473-01A1 CA15064-01 CA15064-01 HL15469-01 AI11674-01 AI11674-01 HD0778-01	INSTITUTION TOTAL CITY TOTAL

DOLI ARS AWARDED

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RESEARCH GRANTS \*

GRANT NUMBER

PRINCIPAL INVESTIGATOR

TITLE OF RESEARCH PROPOSAL

WISCONSIN MILWAUKEE UNIVERSITY OF WISCONSIN SYSTEM--LNIVERSITY CF WISCONSIN-MILWAUKEE UNIVERSITY OF WISCONSIN SYSTEM--LNIVERSITY CF WISCONSIN-MILWAUKEE HL15975-01

INSTITUTION TOTAL CITY TOTAL

STATE TOTAL

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277

TOTAL

275,566

30,792

17,807,808

30,792

.29

	DOLLARS AMARDED	366,914 64,200 E 359,035			0004+			57,310		167,800		89,520	
RESEARCH CONTRACTS	SCOPE OF WORK	SUPPORT FOR REHABILITATION FACILITY FOR CANCER PATIENTS STUDY AND PREPARATION OF GAMMA GLOBULIN SUPPCRT FOR CLINICAL CENTER FOR CORONARY HEART DISEASE	790,149 790,149	790,149	SUPPLIES FOR ARCTIC HEALTH RESEARCH CENTER	4,000 4,000	4,000	FABRICATION OF A PROTOTYPE PULMONARY-FUNCTION ANALYZER	57,310 57,310	, HYLAND DIVISION NEW METHODS OF PLASMA FRACTIONATION	167,800 167,800	PATHOLOGICAL HISTORY OF THE MAMMARY GLAND	89,520
	PROJECT DIRECTOR	OF ALABAMA IN BIRMINGHAM BRANSCOMB, BEN V HABEEB, AHMED F SCHNAPER, HAROLD W	mm	E	SCOTT, E M	1	1	PORTNER, PEER M	1 1	COSTA MESA BAXTER LABORATORIESTRAVENOL LABORATORIES, HYLA HL32970-00 GARCIA, LUIS A	1	CENTER CHNO, SUSUMU	1
	CONTRACT NUMBER	ALABAMA BIRMINGHAM UNIVERSITY OF ALABAMA CN35032-00 HL32939-00 HL33107-00	INSTITUTION TOTAL CITY TOTAL	STATE TGTAL	ALASKA COLLEGE UNIVERSITY OF ALASKA AM32232-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	CALIFORNIA BERKELEY ANDROS, INC. HL33002-00	INSTITUTION TOTAL CITY TOTAL	COSTA MESA BAXTER LABORATORIES HL32970-00	INSTITUTION TOTAL CITY TOTAL	DUARTE CITY OF HCPE MEDICAL CENTER CB33907-00	INSTITUTION TOTAL

CONTRACT NUMBER	PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS
CALIFORNIA LA JOLLA SALK INSTITUTE FOR BIOLOGICAL CP33405-00 CB33879-C. NICOLSON	HOLDES STUDIES HOLLEY, ROBERT WICOLSON, GARTH L	STUDY OF CONTROL OF THE CELL CYCLE STUDY OF SUPRAMOLECULAR ORGANIZATION OF CELL SURFACES	241,424
INSTITUTION TOTAL	2	380,703	
SCRIPPS CLINIC AND R CB33881-00	AND RESEARCH FCUNDATION VANDERLAAN, WILLARD P	PROLACTIN RADIOIMMUNDASSAYS ON HUMAN SERA	97,187
INSTITUTION TOTAL CITY TOTAL	3 .	97,187 477,890	
LOS ANGELES CEDARS-SINAI MEDICAL AM32225-00	CENTER MAXWELL, MORTON H	DEVELOPMENT OF DIALYSIS SYSTEM	75,000
INSTITUTION TOTAL	1	75,000	
LOS ANGELES COUNTY H HD32757-00	LOS ANGELES CGUNTY HEALTH SERVICES DEPARTMENT HD32757-00 BERNSTEIN, GERALD S	-LOS ANGELES CCUNTY-UNIV OF SO CALIFORNIA MED CTR COLLABORATIVE STUDY OF THE EFFECT OF VASECTOMY	337,000
INSTITUTION TOTAL	1	337,000	
UMF SYSTEMS LM34732-00	NOT APPLICABLE	MICROFILMING OF BIOMEDICAL LITERATURE	215,850
INSTITUTION TOTAL	<b>1</b> -1-4	215,850	
UNIVERSITY OF CALIFC CB43852-00 CB43860-00	OF CALIFORNIA SYSTEMUNIVERSITY OF MORTON, DONALD L WEIMER, HENRY E	CALIFORNIA AT LOS ANGELES STUDY OF HUMAN MELANOMA DEVELOPMENT OF IMMUNODIAGNOSTIC TESTS FOR CANCER	199,173
INSTITUTION TOTAL CITY TOTAL	<i>5</i> 1 <i>1</i> 2	361,328 989,178	
MENLO PARK STANFORD RESEARCH INSTITUTE A132534-00 NS32322-00 WEAVER	STITUTE CHAD, FU-CHUAN WEAVER, CHARLES S	EXTRACTION OF ANTIGENS FROM POLLEN DEVELOPMENT OF RECORDING SYSTEM	66,695
INSTITUTION TOTAL CITY TOTAL	2 2	202,037 202,037	

DOLLARS AWARDED	12,645		9,739				52,700 352,965		10NS 35,070		PATIENTS 40,197		
SCOPE OF WORK	PURCHASE OF MEDICAL ILLUSTRATIONS	12,645	PURCHASE OF MEDICAL ILLUSTRATIONS	9,739 22,384	CALIFORNIA IDENTIFICATION OF CELL TYPES IN CULTURE	88,000	RESEARCH INSTITUTE STUDY OF CHRONIC MASTOPATHY SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	405,665 493,665	DONOR-RECIPIENT IDENTIFICATION IN BLOOD TRANSFUSIONS	35,070 35,070	CALIFORNIA AT SAN FRANCISCO DEVELOPMENT OF NUTRITIONAL SUPPLEMENT FOR RENAL PATIENTS	40,197 40,197	
PROJECT DIRECTOR	RMITAGE, FRANK NOT APPLICABLE		AWARDWEINER, JILL PENKHUS NOT APPLICABLE	2 2 3	MEDICAL CENTER OF NORTHERN C ABRAHAM, SAMUEL	1	KAISER FOUNDATION HOSPITALSKAISER FOUNDATION F CB33921-00 KODLIN, DANKWARD HL33105-00 WILD, JOHN B	че	PROTECTION SYSTEMS CONDE, HECTOR O	1	SAN FRANCISCC UNIVERSITY OF CALIFORNIA SYSTEMUNIVERSITY OF C AM32217-00 HOLLIDAY, MALCOLM A	·	i i
CONTRACT NUMBER	CALIFORNIA NORTH HOLLYWOOD INDIVIDUAL AWARDARMITAGE, FRANK LM34722-00	INSTITUTION TOTAL	INDIVIDUAL AWARDWE LM34721-00	INSTITUTION TOTAL CITY TOTAL	OAKLAND CHILDREN'S HOSPITAL CB33906-00	INSTITUTION TOTAL	KAISER FOUNDATION HO CB33921-00 HL33105-00	INSTITUTION TOTAL CITY TOTAL	RICHMOND ELECTRONIC PROTECTIO HL32972-00	INSTITUTION TOTAL CITY TOTAL	SAN FRANCISCC UNIVERSITY OF CALIFO AM32217-00	INSTITUTION TOTAL CITY TOTAL	SIERRA MADRE

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		CX.	DOLLARS
	PROJECT DIRECTOR	SCOPE OF WORK	AWARDED
INSTITUTION TOTAL CITY TOTAL		43,000	
CALIFORNIA STANFORD STANFORD UNIVERSITY LM34734-00	NOT APPLICABLE	EVALUATION OF ATS-F HEALTH EXPERIMENTS	88,840
INSTITUTION TOTAL CITY TOTAL	1	88,840 88,840	
STATE TOTAL	22	2,706,891	
COLCRADO	OF COLCRADO MEDICAL CENTER SODAL, INGVAR E	DEVELOPMENT OF HIGH-PERFORMANCE RESPIRATORY SPECTROMETER	61,545
INSTITUTION TOTAL CITY TOTAL	<u> </u>	61,545 61,545	
STATE TOTAL	1	61,545	
CONNECTICUT NEW HAVEN YALE UNIVERSITY CB43865-00 CB43859-00	GERSHON, RICHARD K MARCHESI, VINCENT T	STUDY OF THERAPY WITH NEURAMINIDASE-TREATED TUMOR CELLS BIOCHEMISTRY AND DIAGNOSTIC USE OF HUMAN TUMOR ANTIGENS	113,712
INSTITUTION TOTAL CITY TOTAL	2 .	221,712 221,712	
WOODBRIDGE BIO-GANT CORPORATION HL32969-00	JEWETT, W J	NEW METHODS FOR PLASMA FRACTIONATION	140,520
INSTITUTION TOTAL CITY TOTAL	11	140,520	

362,232

STATE TOTAL

### RESEARCH CONTRACTS

DOLLARS	42,060 50,012 143,700			29,019		92,500 82,000			136,576			190,861
SCOPE OF WORK	DIAGNOSTIC TECHNIQUES FOR SICKLE CELL DISEASE STUDY OF DIABETIC RETINOPATHY COLLECTION OF TUMOR AND SERUM SPECIMENS	235,772 584,222	892,288	PREPARATION OF MEDIATED SELF-INSTRUCTION MATERIALS	29,019 29,019	CHROMATOGRAPHIC SCREENING FOR HEMOGLOBINOPATHIES STUDY OF NEOPLASTIC MAMMARY-GLAND TISSUES	174,500	203,519	SCREENING FOR CANCER OF THE BREAST	136,576 136,576	136,576	CONSULTATIVE PROGRAM FOR HOSPITALS
PROJECT DIRECTOR	MENDE, THOMAS J NORTON, EDWARD ROSENBERG, EUGENE B	М. ГО	80	NOT APPLICABLE	1	GEORGIA HUISMAN, TITUS H SCOTT, DAVID F	2.2	ю	POMPA, ALFRED M	11	1	SURGEONS MAYER, ANDREW
CONTRACT NUMBER	FLORIDA MIAMI UNIVERSITY OF MJAMI HL33006-00 EY32118-00 C843861-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	GEORGIA ATLANTA EMORY UNIVERSITY LM34730-00	INSTITUTION TOTAL CITY TOTAL	AUGUSTA MEDICAL COLLEGE OF G HL33007-00 CB33909-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	IDAHO BOISE ST. LUKE'S HOSPITAL CN35029-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	ILLINDIS CHICAGO AMERICAN COLLEGE OF CN35030-00

	DOLLARS AWARDED		CONTENT 30,000		TES 83,035		46,000		100,626			55,081			. 55,706 CONTENT 42,000	
KESEAKCH CUNIKACIS	SCOPE OF WORK	190,861	STUDY OF TECHNIQUES FOR DETERMINING FLUORIDE CO	30,000	TECHNIQUES FOR DETECTION OF OVULATION IN PRIMATES	83,035	CELL KINETICS OF BREAST CANCER	46,000	ILLINOIS AT THE MEDICAL CENTER STUDY OF DIABETIC RETINOPATHY	100,626 450,522	450,522	STUDY OF ULTRASONIC DIAGNOSTIC TECHNIQUES	55,081 55,081	55,081	STUDY OF DIABETIC RETINOPATHY EVALUATION OF TECHNIQUES TO DETERMINE FLUORIDE	702 20
	PROJECT DIRECTOR	1	JATION HEFFERREN, JCHN J	1	CF TECHNOLOGY KROTOSZYNSKI, B K	1	RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER CB33886-0C SKY-PECK, HOWARD H	1	UNIVERSITY OF ILLINGIS SYSTEMUNIVERSITY OF ILL EY32125-00 GOLDBERG, MORTON F	1 5	In	CENTER FOR ADVANCED RESEARCH FRY FRANCIS J		1	WATZKE, ROBERT G WEI, STEPHEN H	,
	CONTRACT NUMBER	INSTITUTION TOTAL	ILLINDIS CHICAGO AMERICAN DENTAL ASSOCIATION DE32428-CO	INSTITUTION TOTAL	ILLINDIS INSTITUTE CF HD32798-00	INSTITUTION TOTAL	RUSH-PRESBYTERIAN-ST. CB33886-0C	INSTITUTION TOTAL	UNIVERSITY OF ILLINGI EY32125-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	INDIANA INDIANAPOLIS INDIANAPOLIS CENTER F NS32319-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	IOWA IOWA CITY UNIVERSITY OF IOWA EY32123-00 DE32429-00	WIOL NOILHIIISMI

### RESEARCH CONTRACTS NIH

CONTRACT NUMBER PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS AWARDED
2	97,706	
, GOLDENBERG, DAVID M	STUCY OF CARCINDEMBRYDNIC ANTIGENS	34,000
	34,000 34,000	
1	34,000	
ALLEN, WILLIAM P	ROLE OF IMMUNITY IN OUTCOME OF INFECTION	79,389
1	79,389 79,389	
NEW ORLEANS GULF SOUTH RESEARCH INSTITUTELAKE PONTCHAR DE32425-00 RAWLS, RALPH H	PONTCHARTRAIN LABORATORIES DIAGNOSTIC SYSTEM FOR EARLY DETECTION OF DENTAL CARIES	80,175
pone	80,175	
LINDHOLM, DALE D	DEVELOPMENT OF HEMODIALYSIS CANNULA DEVICE	21,000
.1 2	21,000 101,175	
m	180,564	
MARYLAND BALTIMORE JOHNS HOPKINS UNIVERSITY HD32796-CO BRUNTON, WILLIAM J EY32127-00 PATZ, ARNALL	REGULATION OF BICARBONATE IN OVIDUCTAL FLUID STUCY OF DIABETIC RETINOPATHY	50,656

		NESCHARCE CONTINUES	
CONTRACT NUMBER	PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS AWARDED
MARYLAND BALTIMORE JOHNS HOPKINS UNIVERSITY EY32139-00 PAT	SITY PATZ, ARNALL	EVALUATION OF RETINAL CHOROIDAL CIRCULATION	413,507
INSTITUTION TOTAL	m	536,650	
UNIVERSITY OF MARYLAN EY32129-00	MARYLAND SYSTEMUNIVERSITY OF M KNATTERUD, GENELL L	OF MARYLAND PROFESSIONAL SCHOOLS STUDY OF RETINOPATHY	174,308
INSTITUTION TOTAL CITY TOTAL	7	174,308 710,958	
BETHESDA LITTON INDUSTRIESLITTON BIONETICS CA92111-0001 CN35023-00 SIBINOVIC, KYL	ITTON BIONETICS INNES, J.R SIBINOVIC, KYLE H	HISTOPATHOLOGICAL SLIDESCOMPARISONS AND DIAGNOSES TRAINING OF LABORATORY PERSONNEL	2,668
INSTITUTION TOTAL	2	53,793	
MICROBIOLGGICAL ASSOCIATES NS42300-00 CASTE NS42301-00 MCKIN	SIATES CASTELLANO, GABRIEL A MCKINNEY, ROBERT	PRODUCTION OF ANTIGENS AND VIRAL DIAGNOSTIC REAGENTS PREPARATION OF CELL CULTURES	155,036 38,636
INSTITUTION TOTAL CITY TOTAL	2 4	193,672 247,465	
LAUREL PHARMACOPATHICS RESEARCH LABORATORIES CB33887-00	ARCH LABORATORIES TEGERIS, ANDREW S	SUPPORT FOR ANIMAL-CARE FACILITY	839448
INSTITUTION TOTAL CITY TOTAL	1	83,448 83,448	
ROCKVILLE ENVIRO CONTROL CP33382-00	HAYWARD, A E	SUPPORT SERVICES FOR THE TOBACCO RESEARCH PROGRAM	119,098
INSTITUTION TOTAL	. 1	119,098	
HEWLETT-PACKARD COMPANY CT32136-00	ANY NOT APPLICABLE	SUPPORT FOR LABORATORY COMPUTER SYSTEM	24,350
INSTITUTION TOTAL	1	24,350	

### NIH

	DOLLARS	114,366			411,700		15,000		161,500		235,639		137,700		42,835	
RESEARCH CONTRACTS	SCOPE OF WORK	SEARCH OF CANCER LITERATURE	114,366 257,814	1,299,685	TIME-TREND ANALYSIS OF DATA RELATED TO PREGNANCY QUTCOME	411,700	NONINVASIVE MEASUREMENT OF VASCULAR CONDITIONS STUDY OF ESTROGEN COMPETITORS	71,572	PREPARATION OF INTRAVENOUS IGG	161,500	DEVELOPMENT OF A RAT-BREEDING COLONY	235,639	STUCY OF ANTIMICROBIAL AGENTS	137,700	STUDY OF METABOLISM OF NUCLEAR PROTEINS OF SPERM STUDY OF DISEASES AMONG VIROLOGIC LABORATORY WORKERS	47,801
	PROJECT DIRECTOR	. THOMPSON & COMPANY LEE, ANTHONY	3	12	FRIEDMAN, EMANUEL A	1	LAING, RONALD A WOTIZ, HERBERT H	2	EARCH PENNELL, ROBERT B	1	MEDICAL CENTER SIDMAN, RICHARD L	1	LOBENE, RALPH R	-	BELLVE, ANTHONY R MACK, THOMAS M	2
	CONTRACT NUMBER	MARYLAND ROCKVILLE TRACOR, INCJOHN I. THOMPSON & COMPANY CP33402-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	MASSACHUSETTS BOSTON BETH ISRAEL HOSPITAL NS32320-00	INSTITUTION TOTAL	BOSTON UNIVERSITY HL32993-00 HD32787-00	INSTITUTION TOTAL	CENTER FOR BLCOD RESEARCH HL32940-00 PENN	INSTITUTION TOTAL	CHILDREN'S HCSPITAL MEDICAL CENTER EY32133-00 SIDMAN, RICHA	INSTITUTION TOTAL	FORSYTH DENTAL CENTER DE32430-0C	INSTITUTION TOTAL	HARVARD UNIVERSITY HD32783-CO CP43218-OC	INSTITUTION TOTAL

DOLLARS AWARDED	5,947		160,865		53,124		000*099		43,425		43,000	
SCOPE OF WORK	PURIFICATION OF BOVINE PARATHYROID EXTRACT STUDY CF ROLE OF PROSTAGLANDINS IN NEOPLASIA	57,947	STUDY OF MACROPHAGE ACTIVATION IN TUMOR IMMUNITY	160,865 1,284,724	EVALUATION OF AUDIOVISUAL SYSTEM	53,124	STUDY OF CONTRACEPTIVE DRUGS	60,900 114,024	STUDY OF CONTROL OF SPERM-FERTILIZING CAPACITY	43,425 43,425	N DEVELOPMENT OF AN IMPLANTABLE OXYGEN SENSOR DEVELOPMENT OF PHOTOGRAPHIC TECHNIQUE FOR ANGIGGRAPHY	133,967 133,967
PRGJECT DIRECTOR	. HOSPITAL POTTS, JOHN T, JR ROBINSON, DWIGHT R	2	PITAL CHURCHILL, W HALLOWELL	11	NOT APPLICABLE	1	BURG, ALAN W	1 2 2	SHREWSBURY WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLCGY HD32781-CO DAVIS, BRIAN K		WALTHAM WHITTAKER CORPORATIONSPACE SCIENCES DIVISION HL33003-00 AISENBERG, SOL SHEENA, DAVID	
CONTRACT NUMBER	MASSACHUSETTS BOSTON MASSACHUSETTS GENERAL HOSPITAL AM32220-00 CB33918-00 ROBINSON,	INSTITUTION TOTAL	ROBERT B. BRIGHAM HCSPITAL CB33896-00 CHURC	INSTITUTION TOTAL CITY TOTAL	CAMBRIDGE ABT ASSOCIATES, INC. LM34738-00	INSTITUTION.TOTAL	ARTHUR D. LITTLE, INC. HD42802-00	INSTITUTION TOTAL CITY TOTAL	SHREWSBURY WORCESTER FOUNDATION HD32781-CO	INSTITUTION TOTAL CITY TOTAL	WALTHAM WHITTAKER CORPORATION HL33003-00 EY32132-00	INSTITUTION TOTAL CITY TOTAL

	NIH RESEARCH CONTRACTS	PAGE 40
PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS AWARDED
BREEDING LABORATORIES FOSTER, HENRY L	FEASIBILITY STUDY OF DOMESTIC PRODUCTION OF MONKEYS	63,000
1	63,000 63,000	
17	1,639,140	
MICHIGAN DETROIT CHILD RESEARCH CENTER OF MICHIGAN CP33333-00 STULBERG, CYRIL S	STUDY OF IDENTIFICATION OF CANCER CELLS IN VITRO	65,020
1	65,020 65,020	
LANSING MICHIGAN DEPARTMENT CF PUBLIC HEALTH HL32941-00 MC CALL, KEITH B	PREPARATION OF GAMMA GLOBULIN	90,720
	90,720 90,720	
2	155,740	
MINNESOTA MINNEAPOLIS HENNEPIN COUNTY GENERAL HOSPITAL AM32228-00 SHAPIRO, FRED L	COLLECTION OF COST DATA FOR DIALYSIS	5,160
1	5,160	
MINNESOTA HARRIS, JOHN E NAJARIAN, JCHN S YUNIS, EDMOND J	STUDY OF DIABETIC RETINOPATHY COLLECTION OF SERA FROM HIGH-CANCER RISK PATIENTS ASSAYS FOR IMMUNE DEPRESSION IN CANCER PATIENTS	83,959 59,613 202,500
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CONTRACT NUMBER	PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS
MINNESOTA ROCHESTER MAYO FOUNDATION			
CB33899-00	AHMANN, D L	EVALUATION OF SURGICAL ADJUVANT CHEMOTHERAPY	93,430
INSTITUTION TOTAL CITY TOTAL		93,430 93,430	
STATE TOTAL	Z.	444,662	
MISSISSIPPI JACKSON UNIVERSITY OF MISSIS AM32229-00	MISSISSIPPI MEDICAL CENTER BOWER, JOHN	COLLECTION OF COST DATA FOR DIALYSIS	8,993
INSTITUTION TOTAL CITY TOTAL		8,993 8,993	
STATE TOTAL	1	8,993	
MISSOURI COLUMBIA UNIVERSITY OF MISSOU RR32138-00	DF MISSOURI SYSTEMUNIVERSITY DF MIS GLUECK, WILLIAM	MISSOURI AT COLUMBIA EVALUATION OF ANIMAL LABORATORIES	52,581
INSTITUTION TOTAL CITY TOTAL	11	52,581 52,581	
SAINT LOUIS WASHINGTON UNIVERSITY HL33017-00 AM32233-00	ry Collins, John A SPARKS, ROBERT E	STUDY OF MASSIVE BLOOD TRANSFUSION IMPROVEMENT OF PHOSPHOROUS BINDERS	34,416 28,350
INSTITUTION TOTAL CITY TOTAL	2 2	62,766 62,766	
STATE TOTAL	6	115,347	
NEBRASKA OMAHA CREIGHTON UNIVERSITY CB33901-00	LYNCH, HENRY I	STUDY OF FAMILIES WITH A HIGH INCIDENCE OF BREAST CANCER	000 * 06
INSTITUTION TOTAL	1	000*006	

DOLLARS AWARDED

### NIH RESEARCH CONTRACTS

SCOPE OF WORK	000,000	000,006	RESEARCH AND ENGINEERING COMPANY M J	66,212 66,212	NEW JERSEY MEDICAL SCHOOL SCREENING FOR CANCER OF THE BREAST SUPPCRT FOR CLINICAL CENTER FOR HEART DISEASE	523,139 523,139	589,351	AL COLLEGE STUDY OF DIABETIC RETINOPATHY	66,928 66,928	PARK MEMORIAL INSTITUTE STUBY OF CARCINDEMBRYONIC ANTIGENS	75,000 75,000	STUDY OF SMOKING AND MORTALITY AMONG VETERANS
PROJECT DIRECTOR	prof.	1	<<	1 1	AND DENTISTRY OF NEW JERSEYNEW HUTTER, ROBERT V LASSER, NORMAN L	2 2	6	AND UNIVERSITY SYSTEMALBANY MEDICAL VAN HEUVEN; WICHARD A	1	OF HEALTHROSWELL TSANN M	e e	TY HAMMOND, CUYLER E
CONTRACT NUMBER	CITY TOTAL	STATE TOTAL	NEW JERSEY LINDEN STANDARD OIL COMPANY (N.J.)ESSO AM32224-00 ASHER, WILLI	INSTITUTION TOTAL CITY TOTAL	NEWARK COLLEGE OF MEDICINE A CN35006-00 HL33104-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	NEW YORK ALBANY UNION COLLEGE AND UNI EY32124-00	INSTITUTION TOTAL CITY TOTAL	BUFFALO NEW YORK STATE DEPARTMENT CB33858-00 CHU,	INSTITUTION TOTAL CITY TOTAL	NEW YGRK AMERICAN CANCER SGCIETY CP43213-00

161,402

66,212

66,928

75,000

100,877

DOLLARS AWARDED	201,850		99,600		86,600		420,000		49,480		125,632		5,000		141,600	
SCOPE OF WORK	SUPPORT FOR THIRD WORLD CONFERENCE ON SMOKING	302,727	OL OF MEDICINE STUDY OF EFFECTOR MOLECULES AND CELLULAR BIOCHEMISTRY DEVELOPMENT OF CLINICAL CANCER CHEMOTHERAPY PROGRAM	407,738	DEVELOPMENT OF POLYELECTROLYTE SYSTEM FOR CAUTERIZATION	86,600	EVALUATION OF THERMOGRAPHY IN BREAST-CANCER SCREENING	420,000	IMMUNDLOGIC METHOD FOR DIAGNOSIS OF SICKLE CELL ANEMIA STUDY OF CELL KINETICS OF CANCER OF THE BREAST	150,180	ISOLATION AND TISSUE CULTURE OF HUMAN TUMOR CELLS	125,632	COLLECTION OF COST DATA FOR DIALYSIS	5,000	ISOLATION OF CELL TYPES FROM ADULT MAMMALIAN LUNG STUDY OF STRUCTURE OF THE LUNGS	286,220 1,784,097
CONTRACT NUMBER PROJECT DIRECTOR	NEW YORK NEW YORK AMERICAN CANCER SOCIETY CN35010-00	INSTITUTION TOTAL 2	CITY UNIVERSITY OF NEW YORKMOUNT SINAI SCHOOL CB33912-00 DOUGLAS, STEVEN D CN35009-00 WASSERMAN, LOUIS R	INSTITUTION TOTAL 2	COLUMBIA UNIVERSITY HD32797-00	INSTITUTION TOTAL 1	HEALTH INSURANCE PLAN OF GREATER NEW YORK CN35021-0C	INSTITUTION TOTAL 1	NEW YORK UNIVERSITY JAVID, JAMSHID CB33903-00 POST, JOSEPH	INSTITUTION TOTAL 2	SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH C843854-00	INSTITUTION TOTAL 1	SOCIETY OF THE NEW YORK HOSPITAL AM32231-00 RUBIN, ALBERT L	INSTITUTION TOTAL 1	YESHIVA UNIVERSITY HL33014-00 HL33013-00 KIKKAWA, YUTAKA	INSTITUTION TOTAL 2 CITY TOTAL 12

	NIH RESEARCH CONTRACTS	PAGE 44
CONTRACT NUMBER PROJECT DIRECTOR	SCGPE OF WORK	DOLLARS
NEW YDRK ROCHESTER UNIVERSITY OF ROCHESTER AM32221-00 BAUM, JOHN AM32218-00 BETTS, ROBERT F	STUBY OF CHEMOTAXIS IN UREMIA VIRUS INFECTION IN CHRONIC HEMODIALYSIS PATIENTS	20,530
INSTITUTION TOTAL 2 CITY TOTAL 2	88,44C 88,440	
STONY BROOK STATE UNIVERSITY OF NEW YORK AT STONY BROOK CP33361-00 LANE, BERNARD	STUDY DF CARCINDGENESIS IN ORGAN CULTURE	185,000
INSTITUTION TOTAL 1 CITY TOTAL 1	185,000 185,000	
TARRYTOWN TECHNICON CORPORATION CM33746-00 MARGDSHES, MARVIN	DEVELOPMENT OF EQUIPMENT FOR DETERMINING POLYAMINES	170,925
INSTITUTION TOTAL 1 CITY TOTAL 1	170,925 170,925	
STATE TOTAL 18	2,370,390	
NORTH CARCLINA DURHAM DUKE UNIVERSITY 5832117-00 ROSSE, WENDELL F	DEVELOPMENT OF MICROWAVE INSTRUMENTATION COOPERATIVE STUDY OF SICKLE CELL DISEASE	15,267
INSTITUTION TOTAL '2 CITY TOTAL 2	50,267 50,267	
RESEARCH TRIANGL BECTON, DICKINSON AND COMPANYRESEARCH CENTER RS32137-00 PHILLIPS, G B	FER DEVELOPMENT OF MANUAL ON BIOLOGICAL HAZARDS	19,656
INSTITUTION TOTAL 1 CITY TOTAL 1	19,656 19,656	
STATE TOTAL 3	69,923	

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DOLLARS AWARDED

138,891

23,207

72,734

329,585

25,575

94,500

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~	RESEARCH

SCOPE OF WORK	SCREENING FOR CANCER OF THE BREAST	138,891 138,891	CHARACTERIZATION OF MYCOBACTERIAL ANTIGENS DEVELOPMENT OF A TAPE-LOCATOR SYSTEM	34,907 34,907	DEVELOPMENT OF CELL STRAINS FROM LUNGS	72,734 72,734	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	329,585 329,585	SYNTHESIS OF POLYCYCLIC HYDROCARBON DERIVATIVES	25,575 25,575	601,692	STUDY OF EFFECTOR MOLECULES AND CELLULAR BIOCHEMISTRY
PROJECT DIRECTOR	NATI MOSKOWITZ, MYRON		UNIVERSITY DANIEL, THOMAS M MIRALDI, F	2 2	ITY HAY, ROBERT J	1 1	KEZDI, PAUL	1	RATORIES FRIEDMAN, LESTER	1 1	9	RSITY EBNER, KURT E
CONTRACT NUMBER	OHIO CINCINNATI UNIVERSITY OF CINCINN CN35024-00	INSTITUTION TOTAL CITY TOTAL	CLEVELAND CASE WESTERN RESERVE A132527-00 NS32323-00	INSTITUTION TOTAL CITY TOTAL	DAYTON WRIGHT STATE UNIVERSI HL33016-00	INSTITUTION TOTAL CITY TOTAL	KETTERING COX HEART INSTITUTE HL33108-00	INSTITUTION TOTAL CITY TOTAL	MAPLE HEIGHTS MICROBIOLGGICAL LABOR CP33388-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	OKLAHOMA STILLWATER GKLAHGMA STATE UNIVER CB33910-CO

	DOLLARS			24,242		096,960			195,943		50,425		7,471		8,532	
RESEARCH CONTRACTS	SCOPE OF WORK	94,500 94,500	94,500	PLAFELET FUNCTION AS AN INDICATOR OF ADEQUATE DIALYSIS	24,242	OF DREGON MEDICAL SCHOOL PREPARATION OF GAMMA GLOBULIN	90,960 115,202	115,202	MEDICAL CENTER STUBY OF CANCER IMMUNDTHERAPY	195,943 195,943	SURVEY OF HEALTH CHARACTERISTICS OF TWINS	50,425	USE GF COMPUTER INPUT TO GATHER MEDLARS DATA	7,471	STUDY OF CITATION USE OF THE MEDICAL LITERATURE	8,532
	CONTRACT NUMBER PROJECT DIRECTOR	INSTITUTION TOTAL 1	STATE TOTAL 1	OREGON PORTLAND GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER AM322222-00 RABINER, FREDERICK S	INSTITUTION TOTAL 1	OREGON STATE HIGHER EDUCATION SYSTEMUNIVERSITY HL32942-00 PIROFSKY, BERNARD	INSTITUTION TOTAL 1	STATE TOTAL 2	PENNSYLVANIA HERSHEY PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY CB33891-00 BARTLETT, GERALD L	INSTITUTION TOTAL 1 CITY TOTAL 1	PHILADELPHIA BODZ, ALLEN & HAMILTONNATIONAL ANALYSTS HL33111-00 COHEN, JOEL B	INSTITUTION TOTAL 1	FRANKLIN INSTITUTE OF THE STATE OF PENNSYLVANIA LM34735-00 NOT APPLICABLE	INSTITUTION TOTAL 1	INSTITUTE FOR SCIENTIFIC INFORMATION LM34731-00 NOT APPLICABLE	INSTITUTION TOTAL 1

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324,862

SUPPORT FOR CLINICAL CENTER FOR CORONARY HEART DISEASE SCREENING FOR CANCER OF THE BREAST

448,862 448,862

KULLER, LEWIS H SASHIN, DONALD

PITTSBURGH UNIVERSITY OF PITTSBURGH

HL 33109-00 CB33904-00

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GAFFNEY, E V

PENNSYLVANIA STATE UNIVERSITY

CB33898-00

UNIVERSITY PARK

INSTITUTION TOTAL CITY TOTAL

	NIH RESEARCH CONTRACTS	PAGE 47
PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS AWARDED
HOLMES, WILLIAM L	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	333,856
1	333,856	
IC CENTER ALTSCHULER, HENRY	COLLECTION OF SERA FROM HIGH CANCER-RISK POPULATIONS	46,000
1	46,000	
VERSITY WALLACE, JOHN D	STUDY OF THERMOGRAPHY IN SCREENING FOR BREAST CANCER	499,900
1	499,900	
NCE CENTER CLARK, KAPP J	SCREENING FOR CANCER OF THE BREAST	498,068
1	498,068	
GASIC, GABRIEL J WURZEL, HARGLD A	EFFECTIVENESS OF NEURAMINIDASE IN TUMOR IMMUNOTHERAPY STUDY OF MASSIVE TRANSFUSION OF BLOOD	60,375 59,761
2	120,136	
TASMAN, WILLIAM S	STUDY OF DIABETIC RETINOPATHY	45,692
1 10	45,692 1,610,080	

PHILADELPHIA GERIATRIC CENTER

CB33914-00

INSTITUTION TOTAL

LANKENAU HOSPITAL

HL33110-00

PENNSYLVANIA PHILADELPHIA

CONTRACT NUMBER

THOMAS JEFFERSCN UNIVERSITY

CN35027-00

INSTITUTION TOTAL

UNIVERSITY CITY SCIENCE CENTER

CN35035-00

INSTITUTION TOTAL

INSTITUTION TOTAL

WILLS EYE HOSPITAL

EY32119-00

UNIVERSITY OF PENNSYLVANIA

CB33860-00 HL32963-00

INSTITUTION TOTAL

INSTITUTION TOTAL

CITY TOTAL

	NIH RESEARCH CONTRACTS	PAGE 48
CONTRACT NUMBER PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS AWARDED
INSTITUTION TOTAL 1	57,114 57,114	
STATE TOTAL 14	2,311,999	
TENNESSEE MEMPHIS UNIVERSITY OF TENNESSEE SYSTEMUNIVERSITY AM32219-00 AUTIAN, JOHN	. OF TENNESSEE MEDICAL UNITS TOXICITY OF CONSTITUENTS FROM DIALYZERS	29,680
INSTITUTION TOTAL 1	29,680 29,680	
NASHVILLE DIALYSIS CLINIC AM32226-00	COLLECTION OF COST DATA FOR DIALYSIS	5,500
INSTITUTION TOTAL 1	5,500 5,500	
STATE TOTAL 2	35,180	
TEXAS AUSTIN UNIVERSITY OF TEXAS SYSTEMUNIVERSITY OF CP33384-00 GIBSON, DAVID T	OF TEXAS AT AUSTIN SYNTHESIS OF CARCINGGENIC POLYCYCLIC HYDROCARBONS	53,500
INSTITUTION TOTAL 1 CITY TOTAL 1	53,500 53,500	
HOUSTON UNIVERSITY OF TEXAS SYSTEMUNIVERSITY OF CB33888-00 GUTTERMAN, JORDAN U CN35033-00 HICKEY, ROBERT C	TEXAS M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE STUDY OF CANCER IMMUNOTHERAPY SUPPORT FOR CANCER INFORMATION TELEPHONE SERVICES	463,000 148,146
INSTITUTION TOTAL 2	611,146	
UNIVERSITY OF TEXAS SYSTEMUNIVERSITY OF HD32782-00 SANBORN, BARBARA M HD32779-00 SANBCRN, BARBARA M	OF TEXAS MEDICAL SCHOOL AT HOUSTON  STUDY OF ANDROGEN RECEPTORS IN THE TESTIS STUDY OF EXISTENCE OF SPECIFIC CYTOPLASMIC RECEPTORS	96,706
INSTITUTION TOTAL 2	168,687	

DOLLARS AWARDED	66,613	146,967	496,037	292,485
SCOPE OF WORK 779,833 833,333	ITY OF UTAH STUDY OF DIABETIC RETINOPATHY 66,613 66,613	. COLLEGE STUDY OF CARCINGGENESIS IN ORGAN CULTURE 146,967 146,967	MOLECULAR STUDY OF CARCINOMA OF THE BREAST 496,037 496,037	STUDY OF BONE-MARROW TRANSPLANTATION AND IMMUNOLOGY 292,485 292,485
PROJECT DIRECTOR 4 5	UTAH SALT LAKE CITY UTAH STATE HIGHER EDUCATION SYSTEM——UNIVERSITY EY32122—CO RIEKHOF, F TEMPLE INSTITUTION TOTAL 1 CITY TOTAL 1 STATE TOTAL 1	OF VERMONT AND STATE AGRICULTURAL COLLEGE CRAIGHEAD, JOHN E ON TOTAL 1 146,	VERNA, JOHN E 1 1	SCIENCES CORPORATIONHAZELTON LABORATORIES BOWLES, CHARLES A TOTAL 1 292,485
CONTRACT NUMBER CITY TOTAL STATE TGTAL	SALT LAKE CITY UTAH STATE HIGHER ED EY32122-CO INSTITUTION TOTAL CITY TOTAL	VERMONT BURLINGTON UNIVERSITY OF VERMON CP33360-00 INSTITUTION TOTAL CITY TOTAL STATE TGTAL	VIRGINIA SPRINGFIELD MELOY LABORATCRIES CP43223-00 INSTITUTICN TOTAL CITY TOTAL	VIENNA ENVIRONMENTAL SCIENCE CM43702-00 INSTITUTION TOTAL CITY TOTAL

DOLLARS	97,262		7,372		315,005			128,163		70,282		70,200	
SCOPE OF WORK	EST LABORATORIES STUDY OF IMPLANTATION OF LUNG PELLETS	97,262 97,262	COLLECTION OF COST DATA ON HEMODYALYSIS	7,372	CLINICAL STUDY OF DIABETIC RETINOPATHY DOCUMENTATION OF ATS-F HEALTH EXPERIMENTS	616,611 623,983	721,245	CF WISCONSIN-MADISON STUDY OF DIABETIC RETINOPATHY STUDY OF DIABETIC RETINOPATHY	201,830 201,830	STUDY OF BIOLOGICAL STIMULATORS OF INTERFERON	70,282	STUDY OF GRAFTS AND TUMORS OF CARCINOMA	70,200 140,482
CONTRACT NUMBER PROJECT DIRECTOR	WASHINGTON RICHLAND BATTELLE MEMORIAL INSTITUTEPACIFIC NORTHWEST CP33374-00	INSTITUTION TOTAL 1	SEATTLE SWEDISH HOSPITAL MEDICAL CENTER AM32230-00 BLAGG, CHRISTOPHER R	INSTITUTION TOTAL 1	UNIVERSITY OF WASHINGTON EY42128-00 MC LEAN, EDWARD B LM34733-00 NOT APPLICABLE	INSTITUTION TOTAL 2 CITY TOTAL 3	STATE TOTAL 4	WISCONSIN MADISON UNIVERSITY OF WISCONSIN SYSTEMUNIVERSITY CF EY32130-00 MYERS, FRANK L	INSTITUTION TOTAL 2 CITY TOTAL 2	MILWAUKEE MEDICAL COLLEGE OF WISCONSIN AI32530-00 GROSSBERG, SIDNEY E	INȘTITUTION TOTAL 1	MOUNT SINAI MEDICAL CENTER CB33853-00 BORTIN, M M	INSTITUTION TOTAL 1 CITY TOTAL 2

DOLLARS	300,000	108,418	22,350	2,810
SCOPE OF WORK 342,312	OF PUERTO RICO MEDICAL SCIENCES CAMPUS SUPPORT FOR PRIMATE-BREEDING COLONY STUDY OF ECOLOGY AND BREEDING OF SUBHUMAN PRIMATES 320,000 320,000	GRANULOCYTE AND MACROPHAGE PROLIFERATION IN LEUKEMIA 108,418 108,418 108,418	MOLECULAR BIOLOGY RESPONSE OF EMBRYO MAMMARY GLAND TO ANDROGENIC HORMONES 22,350 22,350	COLLABORATIVE STUDY OF SURGERY ON CORONARY ARTERIES 2,810 2,810
PROJECT DIRECTOR	RICO SYSTEMUNIVERSITY OF CONAWAY, C. H. CONAWAY, C. LINTON H. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	TCAL	SCIENCESINSTITUTE FOR MOL KRATOCHWILL, KLAUS 1 1	BOURASSA, MARTIAL G  1 1
CONTRACT NUMBER STATE TOTAL	PUERTO RICC SAN JUAN UNIVERSITY OF PUERTO RS32135-00 RR42141-00 INSTITUTION TOTAL CITY TOTAL	AUSTRALIA PARKVILLE UNIVERSITY OF MELBOURNE CB33854-CC INSTITUTION TOTAL CITY TOTAL STATE TOTAL	AUSTRIA SALZBURG AUSTRIAN ACACEMY OF CB33883-00 INSTITUTION TOTAL CITY FOTAL	CANADA MONTREAL MONTREAL HEART INSTITUTE HL32983-00 INSTITUTION TOTAL CITY TOTAL

52	
PAGE	

		RESEARCH CONTRACTS	
CONTRACT NUMBER	PROJECT DIRECTOR	SCOPE OF WORK	DOLLARS
ISRAEL JERUSALEM HEBREW UNIVERSITY CP33310-CC CP33342-00 HL33103-00	BECKER, YECHIEL GOLDBLUM, NATAN MEDALIE, JACK H	STUDY OF ROLE OF HERPES VIRUS (EBV) IN HUMAN CANCER STUDY OF HODGKIN*S DISEASE STUDY OF ISCHEMIC HEART DISEASE AND HYPERTENSION	98,000 154,628 36,600
INSTITUTION TOTAL CITY TOTAL	നേന	289,228 289,228	
TEL AVIV TEL AVIV UNIVERSITY CB43858-0C	WITZ, ISAAC P	STUDY OF TUMOR CELL AND IMMUNOGLOBIN INTERACTIONS	30,000
INSTITUTION TOTAL CITY TOTAL		30,000 30,000	
STATE TOTAL	4	319,228	
NETHERLANDS RIJSWIJK NETHERLANDS CENTRAL ORGANIZATION TNO CP33330-00 BROCRSE, JOHANN	ORGANIZATION TNO BROCRSE, JOHANNES J	STUDY OF INTERACTION OF HORMONES	195,201
INSTITUTION TOTAL CITY TOTAL	11	195,201 195,201	
UTRECHT UNIVERSITY OF UTRECHT CB33885-00	II DE WAARD, FRITS	STUDY OF ROLE OF OBESITY IN CANCER OF THE BREAST	24,500
INSTITUTION TOTAL CITY TOTAL	.1	24,500 24,500	
, STATE TOTAL	2	219,701	
S AFR REP OF CAPE TOWN UNIVERSITY OF CAPE TGWN CM33738-00 SE	CWN SEALY, GORDON R	THERAPY OF PATIENTS WITH BRONCHOGENIC CARCINOMA	36,000
INSTITUTION TOTAL CITY TOTAL	, mar part	36,000	

DOLLARS AWARDED	16,370 8,370 23,870 18,120		172,130			195,000			
SCOPE OF WORK	ROLE OF T-LYMPHOCYTES IN TUMOR-ASSOCIATED IMMUNITY STUDY OF CELL SYNERGY IN IMMUNE REACTIONS STUDY OF EFFECTOR MECHANISMS IN IMMUNE REACTIONS STUDY OF CELL-MEDIATED LYSIS	66,730	STUDY OF POLYCYCLIC HYDROCARBON METABOLISM	172,130 238,860	238,860	STUDY OF NATURE OF THE POLYCYCLIC HYDROCARBON	195,000 195,000	195,000	20,576,008
PROJECT DIRECTOR	ANDERSON, BIRGER BLOMGREN, HENRIC KLEIN, EVA WIGZELL, HANS	4	LLM ERNSTER, LARS	. 2	ſĄ.	BROOKES, PETER	~ ~	1	184
CONTRACT NUMBER	SWEDEN STOCKHOLM CARCLINE INSTITUTE CB33866-00 CB33868-00 CB33870-00 CB33859-00	INSTITUTION TOTAL	UNIVERSITY OF STOCKHOLM CP33363-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	UNITED KINGDCM LONDON UNIVERSITY OF LONDON CP33367-00	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	TOTAL

DOLLARS

23,076

NIH RESEARCH TRAINING GRANTS	TITLE OF PROGRAM	GENETIC HEMATOLOGY	23,076 23,076	23,076	23,076
	PROGRAM DIRECTOR	WEISSMAN, SHERMAN M	rd red	, end	F
	GRANT NUMBER	CONNECTICLT NEW HAVEN YALE UNIVERSITY AM05708-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	TOTAL

# NIH RESEARCH FELLOWSHIP AWARDS

FIELD OF INTEREST	UNIVERSITY CELL BIOLOGY
	FLORIDA FALLAHASSEE STATE UNIVERSITY OF FLORIDA SYSTEMFLORIDA STATE UNIVERSITY FW02063-01 KISTLER, ANDREAS
FELLOW	FLORIDA
APPLICATION NUMBER FELLOW	FLORIDA TALLAHASSEE STATE UNIVERSITY OF TWO2063-01

INSTITUTION TOTAL CITY TOTAL

STATE TOTAL

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PROGRAM

## NIH CONSTRUCTION GRANTS

GRANT NUMBER	AUTHORIZING OFFICIAL	TITLE CF PROPOSAL	DOLLARS AWARDED
ALABAMA BIRMINGHAM UNIVERSITY OF ALABAM CA14717-01	OF ALABAMA IN BIRMINGHAM DURANI, JOHN R	NEW CANCER FACILITY	1,114,262
INSTITUTION TOTAL CITY TOTAL	, , ,	1,114,262 1,114,262	
STATE TCTAL	1	1,114,262	
CALIFORNIA LOS ANGELES LOS ANGELES CCUNTY H CA15654-01	CCUNTY HEALTH SERVICES DEPARTMENTL HAMMOND, DENMAN	TLOS ANGELES COUNTY-UNIV OF SO CALIFORNIA MED CTR REMODELING CANCER RESEARCH FACILITY	2,145,700
INSTITUTION TOTAL CITY TOTAL	1	2,145,700 2,145,700	
STATE TOTAL	1	2,145,700	
FLORIDA MIAMI UNIVERSITY OF MIAMI CA14606-01	LESSNER, HOWARD E	CANCER RESEARCH CENTER OF GREATER MIAMI	525,000
INSTITUTION TOTAL CITY TOTAL	1	525,000 525,000	
STATE TOTAL	1	525,000	
NEW YORK NEW YORK COLUMBIA UNIVERSITY CA14741-01	MARKS, PAUL A	EXPANDING & REMODELING EQUIPMENT OF EXISTING FACILITY	530,271
INSTITUTION TOTAL		530,271	
MEMORIAL HOSPITAL FO CA14240-01	MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES CA14240-01 MC LOUGHLIN, WILLIAM J	ASES EMERGENCY ELECTRICAL POWER INSTALLATION	870,000
INSTITUTION TOTAL	1	870,000	

## CONSTRUCTION GRANTS

DOLLARS AWARDED	1,725,047			4,243,331			1,217,667			000.04			
TITLE OF PROPOSAL	NEW CANCER FACILITY	1,725,047 3,125,318	3,125,318	NEW CANCER FACILITY	4,243,331 4,243,331	4,243,331	NEW CANCER FACILITY	1,217,667	1,217,667	F WISCONSIN-MADISON NEW CANCER FACILITY	40,000	40,000	12 411 278
AUTHORIZING OFFICIAL	TY ALLFREY, VINCENT G	3	m	SHINGLETON, W W	1	1	SEARCH FOUNDATION HUTCHINSON, WILLIAM B	1	1	OF WISCONSIN SYSTEMUNIVERSITY GF KELSEY, CHARLES A	FF FF	1	c
GRANT NUMBER	NEW YORK NEW YORK ROCKEFELLER UNIVERSITY CA14622-01 A	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	NORTH CAROLINA DURHAM DUKE UNIVERSITY CA14463-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	WASHINGTON SEATTLE PACIFIC NORTHWEST RESEARCH FOUNDATION CA14501-01	INSTITUTION TOTAL CITY TOTAL	STATE TCTAL	WISCONSIN MADISGN UNIVERSITY OF WISCON	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	

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# NIH MEDICAL LIBRARY GRANTS

DOLLARS AWARDED	26,587		1,755			32,426			18,177			2,650	
TITLE OF RESEARCH PROPOSAL	REGIONAL MEDICAL LIBRARY SUPPORT	26,587 26,587	MEDICAL LIBRARY RESOURCE IMPROVEMENT SUPPORT	1,755 1,755	28,342	AT INDIANAPOLIS REGIONAL MEDICAL LIBRARY SUPPORT	32,426 32,426	32,426	LOUISIANA NEW ORLEANS LOUISIANA STATE UNIVERSITY SYSTEMLOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS LMO1877-01 ISCHE, JCHN P	18°177 18°177	18,177	HYGIENEEASTERN SHORE STATE HOSPITAL MEDICAL LIBRARY RESOURCE IMPROVEMENT SUPPORT	2,650
PRINCIPAL INVESTIGATOR	PLETZKE, CHESTER J	1 1	ITAL CHALLANS, IMOGENE	1 1	2	INDIANA INDIANAPOLIS INDIANA UNIVERSITY SYSTEMINDIANA UNIVERSITY LMO2016-01 LAATZ, MARY J	1	1	VERSITY SYSTEMLOUISIANA S ISCHE, JCHN P	1	1	CAMBRIDGE MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL LMO2066-01 ENGLISH, H M	1
GRANT NUMBER	ILLINGIS CHICAGD JOHN CRERAR LIBRARY LMOZOOO-OI	INSTITUTION TOTAL CITY TOTAL	PANA PANA COMMUNITY HOSPITAL LMC1935-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	INDIANA INDIANAPOLIS INDIANA UNIVERSITY S LMOZO16-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	LOUISIANA NEW ORLEANS LOUISIANA STATE UNIV LMO1877-01	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	MARYLAND CAMBRIDGE MARYLAND STATE DEPAR LMO2066-01	INSTITUTION TOTAL

PAGE 59	DOLLARS AWARDED	29,953	3,000		71,215	29,723
MEDICAL LIBRARY GRANTS	TITLE OF RESEARCH PROPOSAL 2,650	MINNESOTA HOSPITAL LIBRARY EXTENSION SERVICE	29,953 MEDICAL LIBRARY RESOURCE IMPROVEMENT SUPPORT		MEDICAL LIBRARY RESOURCE PROJECT SUPPORT 71,215 71,215	REGIONAL MEDICAL LIBRARY SUPPORT 29,723 29,723 29,723
	GRANT NUMBER PRINCIPAL INVESTIGATOR CITY TOTAL 1 STATE TOTAL 1	NESOTA BRUDVI	TAL KA TECHNICAL SWANSD	ICN TOTAL OTAL E TOTAL NIVERSITY	LMOZOO6-01 INSTITUTION TOTAL  CITY TOTAL  STATE TOTAL  1	NORTH DAKGTA GRAND FORKS UNIVERSITY OF NORTH DAKGTA LMO2010-01 INSTITUTION TOTAL  CITY TOTAL  STATE TGTAL  1

# MEDICAL LIBRARY GRANTS

DOLLARS AWARDED	60,170			32.973			
TITLE OF RESEARCH PROPOSAL	MEDICAL LIBRARY RESOURCE PROJECT SUPPORT	60,170 60,170	60,170	WISCONSIN-MADISON REGIONAL WEDICAL LIBRARY SUPPORT	32,97	32,973	308,629
PRINCIPAL INVESTIGATOR	IF SOUTH CAROLINA SAWYER, WARREN A		1	WISCONSIN MADISCN UNIVERSITY OF WISCONSIN SYSTEMUNIVERSITY OF 1MO2027-01	1	1	11
GRANT NUMBER	SOUTH CARGLINA CHARLESTON MEDICAL UNIVERSITY OF SOUTH CAROLINA LM01820-01 SAWYER, WARREN	INSTITUTION TOTAL	STATE TOTAL	MISCONSIN MADISON UNIVERSITY OF WISCON	INSTITUTION TOTAL CITY TOTAL	STATE TOTAL	TOTAL



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